VPDES PERMIT PROGRAM FACT SHEET

This document gives pertinent information concerning the VPDES Permit listed below. This permit is being processed as a **MAJOR, MUNICIPAL** permit.

1. **PERMIT NO.: VA0081248** **EXPIRATION DATE: January 16, 2012**

2. **FACILITY NAME AND LOCAL MAILING ADDRESS**

HRSD-Atlantic STP
Hampton Roads Sanitation District
1436 Air Rail Avenue
Virginia Beach, VA 23455

FACILITY LOCATION ADDRESS (IF DIFFERENT)

645 Firefall Drive
Virginia Beach, VA

CONTACT AT FACILITY:
NAME: Mr. James Pletl
TITLE: Chief of Technical Services
PHONE: (757)460-4243

CONTACT AT LOCATION ADDRESS
NAME: N/A
TITLE:
PHONE: ( )

3. **OWNER CONTACT:** (TO RECEIVE PERMIT)
NAME: Mr. Edward G. Henifin
TITLE: General Manager
COMPANY NAME: HRSD
ADDRESS: 1436 Air Rail Ave
Virginia Beach VA 23455
PHONE: (757)460-2261
EMAIL: thenifin@hrsd.com

CONSULTANT CONTACT:
NAME: N/A
FIRM NAME:
ADDRESS:

PHONE: ( )

4. **PERMIT DRAFTED BY:** DEQ, Water Permits, Regional Office

Permit Writer(s): Deanna Austin DA Date(s): 8/2/11-9/14/11
Reviewed By: Mark Sauer (MS) Date(s): 9/28/11

5. **PERMIT ACTION:**

( ) Issuance (X) Reissuance ( ) Revoke & Reissue ( ) Owner Modification
( ) Board Modification ( ) Change of Ownership/Name [Effective Date:]

6. **SUMMARY OF SPECIFIC ATTACHMENTS LABELED AS:**

Attachment 1	Site Inspection Report/Memorandum
Attachment 2	Discharge Location/Topographic Map
Attachment 3	Schematic/Plans & Specs/Site Map/Water Balance
Attachment 4	TABLE I - Discharge/Outfall Description + Land Application Sites
Attachment 5	TABLE II - Effluent Monitoring/Limitations
Attachment 6	Effluent Limitations/Monitoring Rationale/Suitable Data/Antidegradation/Antibacksliding
Attachment 7	Special Conditions Rationale
Attachment 8	Toxics Monitoring/Toxics Reduction/WET Limit Rationale
Attachment 9	Sludge Disposal Plan
Attachment 10	Receiving Waters Info./Tier Determination/STORET Data/Stream Modeling 303(d) Listed Segments
Attachment 11	TABLE III(a) and TABLE III(b) - Change Sheets
Attachment 12	EPA Permit Checklist
Attachment 13	Chronology Sheet
Attachment 14	Public Participation

APPLICATION COMPLETE: 6/24/11-Site Map Books Received

7. **PERMIT CHARACTERIZATION**: (Check as many as appropriate)

(X) Existing Discharge
( ) Proposed Discharge
(X) Municipal
SIC Code(s) 4952
( ) Industrial
SIC Code(s)
(X) POTW
( ) PVOTW
( ) Private
( ) Federal
( ) State
( ) Publicly-Owned Industrial

(X) Effluent Limited
(X) Water Quality Limited
( ) WET Limit
( ) Interim Limits in Permit
( ) Interim Limits in Other Document
( ) Compliance Schedule Required
( ) Site Specific WQ Criteria
( ) Variance to WQ Standards
( ) Water Effects Ratio
( ) Discharge to 303(d) Listed Segment
(X) Toxics Management Program Required
( ) Toxics Reduction Evaluation
( ) Storm Water Management Plan
(X) Pretreatment Program Required
( ) Possible Interstate Effect
( ) CBP Significant Dischargers List

8. **RECEIVING WATERS CLASSIFICATION**: River basin information.

Outfall No: 001

Receiving Stream:	Atlantic Ocean
River Mile:	N/A
Basin:	Chesapeake Bay, Atlantic Ocean & Small Coastal
Subbasin:	N/A
Section:	1
Class:	I
Special Standard(s):	a
Tidal:	YES
7-Day/10-Year Low Flow:	N/A
1-Day/10-Year Low Flow:	N/A
30-Day/5-Year Low Flow:	N/A
Harmonic Mean Flow:	N/A

Outfalls 002-016

Receiving Stream:	Lake Tecumseh to Back Bay to Currituck Sound
River Mile:	N/A
Basin:	Chowan and Dismal Swamp
Subbasin:	Albemarle
Section:	1
Class:	II
Special Standard(s):	None
Tidal:	No
7-Day/10-Year Low Flow:	0
1-Day/10-Year Low Flow:	0
30-Day/5-Year Low Flow:	0
Harmonic Mean Flow:	0

9. **FACILITY DESCRIPTION:** Describe the type facility from which the discharges originate.

Existing municipal discharge resulting from the discharge of treated domestic sewage.

10. **LICENSED OPERATOR REQUIREMENTS**: ( ) No (X) Yes Class: I

11. **RELIABILITY CLASS**: I

12. **SITE INSPECTION DATE**: 9/16/10 **REPORT DATE**: 10/1/10

Performed By: Steven JE Long

SEE ATTACHMENT 1

13. **DISCHARGE(S) LOCATION DESCRIPTION**: Provide USGS Topo which indicates the discharge location, significant (large) discharger(s) to the receiving stream, water intakes, and other items of interest.

Name of Topo: Virginia Beach Quadrant No.: 033C **SEE ATTACHMENT 2**

14. **ATTACH A SCHEMATIC OF THE WASTEWATER TREATMENT SYSTEM(S) [IND. & MUN.]. FOR INDUSTRIAL FACILITIES, PROVIDE A GENERAL DESCRIPTION OF THE PRODUCTION CYCLE(S) AND ACTIVITIES. FOR MUNICIPAL FACILITIES, PROVIDE A GENERAL DESCRIPTION OF THE TREATMENT PROVIDED.**

SEE ATTACHMENT 3

15. **DISCHARGE DESCRIPTION**: Describe each discharge originating from this facility.

SEE ATTACHMENT 4

16. **COMBINED TOTAL FLOW**:

TOTAL: 54 MGD (for public notice)

NONPROCESS/RAINFALL DEPENDENT FLOW: 0.52 (Est.)

DESIGN FLOW: 54 MGD (MUN.)

17. **STATUTORY OR REGULATORY BASIS FOR EFFLUENT LIMITATIONS AND SPECIAL CONDITIONS**: (Check all which are appropriate)

- [X] State Water Control Law
- [X] Clean Water Act
- [X] VPDES Permit Regulation (9 VAC 25-31-10 et seq.)
- [X] EPA NPDES Regulation (Federal Register)
- [ ] EPA Effluent Guidelines (40 CFR 133 or 400 - 471)
- [X] Water Quality Standards (9 VAC 25-260-5 et seq.)
- [ ] Wasteload Allocation from a TMDL or River Basin Plan

18. **EFFLUENT LIMITATIONS/MONITORING**: Provide all limitations and monitoring requirements being placed on each outfall.

SEE TABLE II - ATTACHMENT 5

19. **EFFLUENT LIMITATIONS/MONITORING RATIONALE**: Attach any analyses of an outfall by individual toxic parameter. As a minimum, it will include: statistics summary (number of data values, quantification level, expected value, variance, covariance, 97th percentile, and statistical method); wasteload allocation (acute, chronic and human health); effluent limitations determination; input data listing. Include all calculations used for each outfall and set of effluent limits and those used in any model(s). Include all calculations/documentation of any antidegradation or anti-backsliding issues in the development of any limitations; complete the review statements below. Provide a rationale for limiting internal waste streams and indicator pollutants. Attach chlorine mass balance calculations, if performed. Attach any additional information used to develop the limitations, including any applicable water quality standards calculations (acute, chronic and human health).

OTHER CONSIDERATIONS IN LIMITATIONS DEVELOPMENT:

VARIANCES/ALTERNATE LIMITATIONS: Provide justification or refutation rationale for requested variances or alternatives to required permit conditions/limitations. This includes, but is not limited to: waivers from testing requirements; variances from technology guidelines or water quality standards; WER/translator study consideration; variances from standard permit limits/conditions.

Alternate Chlorine Limitations See Section 6

SUITABLE DATA: In what, if any, effluent data were considered in the establishment of effluent limitations and provide all appropriate information/calculations.

All suitable effluent data were reviewed.

ANTIDEGRADATION REVIEW: Provide all appropriate information/calculations for the antidegradation review.

The receiving stream has been classified as tier 2; therefore, no significant degradation of the existing water quality will be allowed. See antidegradation calculations/determinations.

ANTIBACKSLIDING REVIEW: Indicate if antibacksliding applies to this permit and, if so, provide all appropriate information.

There are no backsliding issues to address in this permit (i.e., limits as stringent or more stringent when compared to the previous permit).

SEE ATTACHMENT 6

20. **SPECIAL CONDITIONS RATIONALE**: Provide a rationale for each of the permit's special conditions.

SEE ATTACHMENT 7

21. **TOXICS MONITORING/TOXICS REDUCTION AND WET LIMIT SPECIAL CONDITIONS RATIONALE**: Provide the justification for any toxics monitoring program and/or toxics reduction program and WET limit.

SEE ATTACHMENT 8

22. **SLUDGE DISPOSAL PLAN**: Provide a description of the sludge disposal plan (e.g., type sludge, treatment provided and disposal method). Indicate if any of the plan elements are included within the permit.

SEE ATTACHMENT 9

23. **MATERIAL STORED**: List the type and quantity of wastes, fluids, or pollutants being stored at this facility. Briefly describe the storage facilities and list, if any, measures taken to prevent the stored material from reaching State waters.

The significant materials stored onsite include sodium hypochloride, sodium hydroxide, ferric chloride, polymer, fuel oil, propane, ammonia, and gasoline or diesel fuel. Miscellaneous cleaning supplies, lubricant, and coatings are also onsite. These materials are either stored in buildings with drains connected to the treatment system or in containment areas. Fuel tanks are double walled.

24. **RECEIVING WATERS INFORMATION**: Refer to the State Water Control Board's Water Quality Standards [e.g., River Basin Section Tables (9 VAC 25-260-5 et seq.). **Use 9 VAC 25-260-140 C (introduction and numbered paragraph) to address tidal waters where fresh water standards would be applied or transitional waters where the most stringent of fresh or salt water standards would be applied.** Attach any memoranda or other information which helped to develop permit conditions (i.e. tier determinations, PReP complaints, special water quality studies, STORET data and other biological and/or chemical data, etc.

SEE ATTACHMENT 10

25 305(b)/303(d) **Listed Segments**: Indicate if the facility discharges to a segment that is listed on the current 303(d) list and, if so, provide all appropriate information/calculations.

TMDLs are not included in this permit as the receiving waters are not listed on the 303(d) list.

26. **CHANGES TO PERMIT**: Use **TABLE III(a)** to record any changes from the previous permit and the rationale for those changes. Use **TABLE III(b)** to record any changes made to the permit during the permit processing period and the rationale for those changes [i.e., use for comments from the applicant, VDH, EPA, other agencies and/or the public where comments resulted in changes to the permit limitations or any other changes associated with the special conditions or reporting requirements].

SEE ATTACHMENT 11

27. **NPDES INDUSTRIAL PERMIT RATING WORKSHEET:**

N/A - This is a municipal facility.

28. **DEQ PLANNING COMMENTS RECEIVED ON DRAFT PERMIT**: Document any comments received from DEQ planning.

The discharge is not addressed in any planning document but will be included when the plan is updated.

29. **PUBLIC PARTICIPATION:** Document comments/responses received during the public participation process. If comments/responses provided, especially if they result in changes to the permit, place in the attachment.

VDH/DSS COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from the Virginia Dept. of Health and the Div. of Shellfish Sanitation and noted how resolved.

The VDH reviewed the application and waived their right to comment and/or object on the adequacy of the draft permit. Letter received 6/30/11.

The DSS has no comments on the application/draft permit. Email received 6/28/11.

EPA COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from the U.S. Environmental Protection Agency and noted how resolved.

EPA has no objections to the adequacy of the draft permit. Email received 11/23/11.

ADJACENT STATE COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from an adjacent state and noted how resolved.

Not Applicable.

OTHER AGENCY COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from any other agencies (e.g., VIMS, VMRC, DGIF, etc.) and noted how resolved.

The draft permit was sent to VMRC on 6/21/11 and no comments were received.

OTHER COMMENTS RECEIVED FROM RIPARIAN OWNERS/CITIZENS ON DRAFT PERMIT: Document any comments received from other sources and note how resolved.

The application and draft permit have received public notice in accordance with the VPDES Permit Regulation, and all comments that have been received have been addressed and responded to. No public hearing will be required. All comments received have been filed in the DEQ ECM system under this permit number.

DESCRIBE PN COMMENTS AND RESOLUTIONS. PROVIDE PUBLIC HEARING DATE AND REFERENCE BACKGROUND MEMORANDUM, IF APPROPRIATE.

PUBLIC NOTICE INFORMATION: Comment Period: Start Date 11/9/11
End Date 12/9/11

Persons may comment in writing or by e-mail to the DEQ on the proposed reissuance of the permit within 30 days from the date of the first notice. Address all comments to the contact person listed below. Written or e-mail comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The Director of the DEQ may decide to hold a public hearing if public response is significant. Requests for public hearings shall state the reason why a hearing is requested, the nature of the issues proposed to be raised in the public hearing and a brief explanation of how the requestor's interests would be directly and adversely affected by the proposed permit action.

All pertinent information is on file and may be inspected, and arrangements made for copying by contacting Deanna Austin at: Department of Environmental Quality (DEQ), Tidewater Regional Office, 5636 Southern Boulevard, Virginia Beach, VA 23462. Telephone: 757-518-2008 E-mail: deanna.austin@deq.virginia.gov

Following the comment period, the Board will make a determination regarding the proposed reissuance. This determination will become effective, unless the Director grants a public hearing. Due notice of any public hearing will be given.

30. **ADDITIONAL FACT SHEET COMMENTS/PERTINENT INFORMATION:**

ATTACHMENT 1

SITE INSPECTION REPORT/MEMORANDUM

Facility:	HRSD - Atlantic Plant
County/city:	Virginia Beach

VPDES NO.	VA0081248

DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTEWATER FACILITY
INSPECTION REPORT
PART 1

Inspection date:	**September 16, 2010**	Date form completed:	**October 1, 2010**
Inspection by:	**Steven J.E. Long**	Inspection agency:	**DEQ/TRO**
Time spent:	**6 hours**	Announced Inspection:	[ ] Yes [√] No
Reviewed by: **Kenneth T. Raum** KTR		Photographs taken at site?	[√] Yes [ ] No
Present at inspection:	**Richard Roberts – Plant Superintendant, Joel Niemi – Lead Operator Erwin Bonatz – Plant Manager**		

FACILITY TYPE:	FACILITY CLASS:
(√) Municipal	(√) Major
( ) Industrial	( ) Minor
( ) Federal	( ) Small
( ) VPA/NDC	( ) High Priority ( ) Low Priority

TYPE OF INSPECTION:					
Routine	√	Reinspection		Compliance/assistance/complaint	
Date of previous inspection:	**7/12/07**	Agency:	**DEQ/TRO**		
Population Served:		Connections Served			

Last Month Average: Influent	BOD 5 (mg/l)	**228**	TSS (mg/l)	**248**	Flow (MGD)	**31.23**	TKN (mg/l)	**44.6**
	Other: **pH: 6.7-6.9**							
Last Month Average: Effluent	BOD 5 (mg/l)	**7**	TSS (mg/l)	**4.9**	Flow (MGD)	**31.23**	NH_3 (mg/l)	
	Other:							
Last Quarter Average: Effluent	BOD 5 (mg/l)		TSS (mg/l)		Flow (MGD)		NH_3 (mg/l)	
	Other:							

Data verified in preface:	Updated?		NO CHANGES?		√
Has there been any new construction?		YES	√	NO	
If yes, were the plans and specifications approved?		YES	√	NO	
DEQ approval date:	**November 1, 2006. A certificate to operate was issued on April 19, 2010 for Phase I, Contract C.**				

COPIES TO: (x) DEQ/TRO; (x) DEQ/OWCP; (x) OWNER; ( ) OPERATOR; ( ) EPA-Region III; ( ) Other:

FACILITY: HRSD - Atlantic Plant VA0081248

PLANT OPERATION AND MAINTENANCE

1.	Class/number of licensed operators:	I	14	II	1	III	4	IV		Trainee			
2.	Hours per day plant manned?	24/7											
3.	Describe adequacy of staffing	GOOD	√	AVERAGE		POOR							
4.	Does the plant have an established program for training personnel	YES	√	NO									
5.	Describe the adequacy of training	GOOD	√	AVERAGE		POOR							
6.	Are preventative maintenance tasks scheduled	YES	√	NO									
7.	Describe the adequacy of maintenance	GOOD	√	AVERAGE		POOR							
8.	Does the plant experience any organic/hydraulic overloading?	YES		NO	√								
	If yes, identify cause/impact on plant	na											
9.	Any bypassing since last inspection?	YES		NO	√								
10.	Is the standby electrical generator operational?	YES	√	NO		NA							
11.	How often is the standby generator exercised?	Minimum monthly but can be used during high electrical demand when requested.											
	Power transfer switch?	Monthly		ALARM SYSTEM?		Per maintenance schedule							
12.	When was the cross connection last tested on the potable supply?	7/27/10											
13.	Is the STP alarm system operational?	YES	√	NO		NA							
14.	Is sludge disposed in accordance with an approved SMP	YES	√	NO		NA							
15.	Is septage received by the facility?	YES	√	NO									
	Is septage loading controlled?	YES	√	NO		NA							
	Are records maintained?	YES	√	NO		NA							

OVERALL APPEARANCE OF FACILITY	GOOD	√	AVERAGE		POOR	

COMMENTS:	Several new units have been added for the upgrade to a 54 MGD plant.

PLANT RECORDS

	WHICH OF THE FOLLOWING RECORDS DOES THE PLANT MAINTAIN?						
	Operational logs for each process unit	YES	√	NO		NA	
	Instrument maintenance and calibration	YES	√	NO		NA	
	Mechanical equipment maintenance	YES	√	NO		NA	
1.	Industrial waste contribution (municipal facilities)	YES	√	NO		NA	

	WHAT DOES THE OPERATIONAL LOG CONTAIN					
	Visual Observations	√	Flow Measurement	√	Laboratory Results	
2.	Process Adjustments	√	Control Calculations	√	Other?	

COMMENTS: **Daily operations and month operations documented electronically.**

	WHAT DO THE MECHANICAL EQUIPMENT RECORDS CONTAIN?					NA	
	MFG. Instructions	√	As Built Plans/specs	√	Spare Parts Inventory		√
3.	Lube Schedules	√	Other?		Equipment/parts Suppliers		√

COMMENTS: **Plant O&M manual provided by disc and is dated July 2010.**

	WHAT DO INDUSTRIAL WASTE CONTRIBUTION RECORDS CONTAIN? (MUNICIPAL)			NA	√
	Waste Characteristics	√	Impact on Plant		√
4.	Location and Discharge Types	√	Other?		

COMMENTS: **Maintained with pre-treatment program at the central office.**

	WHICH OF THE FOLLOWING RECORDS ARE AT THE PLANT & AVAILABLE TO PERSONNEL?					NA	
	Equipment Maintenance Records	√	Industrial Contributor Records				*
5.	Operational Log	√	Sampling/testing Records	√	Instrumentation Records		√

6.	Records not normally available to personnel at their location:	**Industrial contributor records.**

7.	Were the records reviewed during the inspection	YES	√	NO	
8.	Are records adequate and the O&M manual current?	YES	√	NO	
9.	Are the records maintained for the required 3-year time period	YES	√	NO	

COMMENTS: **Records briefly maintained at the facility. Electronic copies of the Daily Operations Report for 9/15/10 and the Monthly Plant Operations Report for August were obtained via e-mail.**

SAMPLING

1.	Are sampling locations capable of providing representative samples?					YES	√	NO	
2.	Do sample types correspond to VPDES permit requirements?					YES	√	NO	
3.	Do sampling frequencies correspond to VPDES permit requirements?					YES	√	NO	
4.	Does plant maintain required records of sampling?					YES	√	NO	
5.	Are composite samples collected in proportion to flow?	YES	√	NO		NA			
6.	Are composite samples refrigerated during collection?	YES	√	NO		NA			
7.	Does the plant run operational control tests?	YES	√	NO		NA			

COMMENTS:

TESTING

	Who performs the testing?	Plant	√	Central Lab	√	Commercial Lab	
1.	Name:						

IF THE PLANT PERFORMS ANY TESTING, PLEASE COMPLETE QUESTIONS 2-4

2.	Which total residual chlorine method is used?	**Hach Pocket colorimeter**					
3.	Does plant appear to have sufficient equipment to perform required tests?	YES	√	NO			
4.	Does testing equipment appear to be clean and/or operable?	YES	*	NO			

COMMENTS: ***Lab equipment was not reviewed during this visit.**

FOR INDUSTRIAL FACILITIES WITH TECHNOLOGY BASED LIMITS ONLY

1.	Is the production process as described in permit application? If no, describe changes in comments section.	YES		NO		NA	√		
2.	Are products/production rates as described in the permit application? If no list differences in comments section.	YES		NO		NA	√		
3.	Has the Agency been notified of the changes and their impact on plant effluent? Date agency notified:	YES		NO		NA	√		

COMMENTS:

	PROBLEMS IDENTIFIED AT LAST INSPECTION	CORRECTED	NOT CORRECTED
	No problems noted during the last inspection.		

SUMMARY

	INSPECTION COMMENTS:
	Arrived 1400 and met with Rich Roberts. Discussed the site visit with Mr. Roberts and Mr. Erwin Bonatz. The site survey was conducted by Joel Niemi. Sampling was performed at 1633 and with the site visit ending at 1645.
	No problems were noted that required any response. Several items observed and reported that were just observation and not considered a problem. The only issue that needed some attention was the vegetation observed in/on of the secondary clarifier. It was reported that this could not be removed from the side rails and would require personnel entering the clarifier for removal.

	COMPLIANCE RECOMMENDATIONS FOR ACTION
	None noted.

UNIT PROCESS:	FLOW MEASUREMENT

INFLUENT [ ] INTERMEDIATE [ ] EFFLUENT [√]

			YES	NO	NA
1.	Type of measuring device	**Ultrasonic**			
2.	Present reading?	**13.2 MGD contact tank 1 14.4 MGD contact tank 2**			
3.	Bypass channel			√	
4.	Bypass channel metered?				√
	Return flow discharged upstream of the meter?				√
5.	Identify:				√
6.	Device operating properly?		√		
7.	Date of last calibration?	**7/22/10**			
	EVIDENCE OF THE FOLLOWING PROBLEMS				
	Obstruction?			√	
8.	Grease?			√	

GENERAL CONDITION:	GOOD	√	FAIR		POOR	

COMMENTS:	**Manual staff gauge observed with some flow turbulence noted.**

UNIT PROCESS:	SCREENINGS/COMMINUTION

			YES	NO	NA
1.	Number of manual units	**1**			
2.	Number of mechanical units	**3**			
3.	Number manual units in operation	**0**			
4.	Number of mechanical units in operation	**2**			
	Bypass channel provided		√		
5.	Bypass channel in use			√	
6.	Area adequately ventilated		√		
7.	Alarm system for equipment failure and/or overloads		√		
8.	Proper flow distribution between units				√
9.	How often are units checked and cleaned	**Routinely checked ~ every 4 hours**			
10.	Cycle of operation	**timed**			
11.	Volume of screenings removed	**28 ft^3 average August 2010**			

GENERAL CONDITION:	GOOD	√	FAIR		POOR	

COMMENTS:	**In the new head works building. Three units in place with a fourth that can be added with additional upgrades.**

UNIT PROCESS:	GRIT REMOVAL

		YES	NO	NA
1.	Number of units: 3			
2.	Number units in operation: 2			
3.	Operation of grit collection equipment: [ ] Manual [ ] Time Clock [ ] Continuous Duty			
4.	Area adequately ventilated			
5.	Proper flow distribution between units			
6.	Daily volume of grit removed: **186 ft^3 average August 2010**			
7.	All equipment operable			

GENERAL CONDITION:	GOOD	√	FAIR		POOR	

COMMENTS:	**In the new head works building.**

UNIT PROCESS:	SEDIMENTATION

PRIMARY [√] SECONDARY [ ] TERTIARY [ ]

		YES	NO	NA
1.	Number of units: **6**			
2.	Number units in operation: **2: New units, 5 & 6**			
3.	Proper flow distribution between units	√		
4.	Sludge collection system working properly?	√		
5.	Signs of short circuiting and/or overloads		√	
6.	Effluent weirs level	√		
7.	Effluent weirs clean	√		
8.	Scum collection system working properly	√		
9.	Influent/effluent baffle system working properly	√		
10.	Chemical Used: **Ferric Chloride/Polymer** — Chemical Addition	√		
11.	Effluent characteristics: **Dark color**			

GENERAL CONDITION:	GOOD	√	FAIR		POOR	

COMMENTS:	

UNIT PROCESS:	**ACTIVATED SLUDGE**

			YES	NO	NA
1.	Number of aeration units	**6**			
2.	Number units in operation	**3: Units 3-5**			
3.	Mode of operation:				
4.	Proper flow distribution between units		√		
5.	Foam control operational		√		
6.	Scum control present				√
7.	Dead spots			√	
8.	Excessive foam		√*		
9.	Poor aeration			√	
10.	Excessive scum			√	
11.	Aeration equipment malfunction			√	
12.	Other problem(s):			√	
13.	Effluent control devices working properly (OXIDATION DITCHES)		√		

14. *MIXED LIQUOR CHARACTERISTICS AS AVAILABLE:*

pH (s.u.)		MLSS (mg/l)	**2322**	DO (mg/l) **9/15/10**	**Tank 3: 0.5-4.30** **Tank 4: 0.53-5.29** **Tank 5: 0.63-4.11**
Odor		Settleability (ml/l)		SDI	
Color	**Brown**				

15. *RETURN/WASTE SLUDGE RATES:* **August 2010**

Return Rate	**18.42 MGD**	Waste Rate	**0.865 MGD**	Waste Frequency	**Continuous**

16. *AERATION SYSTEM CONTROL:*

Time Clock		Manual Feed		Continuous Feed	√
Other:					

GENERAL CONDITION:	GOOD	√	FAIR		POOR	

COMMENTS:	**New units on line. Some foam observed in the collection channel largely due to the fact that units 1 and 2 are off line. This allows for the foam to collect at the end of the channel undisturbed. Not an issue just an observation.**

UNIT PROCESS	CHLORINATION

			YES	NO	NA
1.	Number of chlorine tanks?	**5**			
2.	Number of chlorine tanks in operation?	**3**			
3.	Number of evaporators?	**na**			
4.	Number of evaporators in operation	**na**			
5.	Number chlorine contact tanks	**4**			
6.	Number chlorine contact tanks in operation	**2**			
7.	Proper flow distribution between units?		√		
	HOW IS CHLORINE INTRODUCED INTO THE WASTE STREAM?				
8.	Perforated Diffuser				
	Injector w/single entry point	√			
	Tablet Feeder				
9.	Chlorine residual in contact basin effluent (mg/l)	**1.43 mg/L @ 1633, 9/16/10**			
10.	Applied chlorine dosage (lbs/day)	**1078, Aug. 2010**			
11.	Contact basin adequately baffled?		√		
12.	Adequate ventilation in chlorine cylinder storage area?				√
14.	Adequate ventilation in chlorine equipment room?		√		
15.	Proper safety precautions used?		√		

GENERAL CONDITION:	GOOD	√	FAIR		POOR	

COMMENTS:	**Numerous chlorine pumps available.**

UNIT PROCESS:	**Effluent/Plant Outfall**

			YES	NO	NA
1.	Type of outfall	Shore Based			
		Submerged √			
	TYPE IF SHORE BASED:				
2.	Wingwall				
	Headwall				
	Rip Rap				
	Pipe √				
3.	Flapper valve present?				√
4.	Erosion of bank area?				√
5.	Effluent plume visible?				√
6.	Condition of outfall and the supporting structure?				
	GOOD √	FAIR	POOR		
	FINAL EFFLUENT, EVIDENCE OF FOLLOWING PROBLEMS?				
	Oil sheen?			√	
	Grease?			√	
	Sludge bar?			√	
	Turbid effluent?			√	
	Visible foam?		√		
7.	Unusual color?			√	

GENERAL CONDITION:	GOOD	√	FAIR		POOR	

COMMENTS:	**Effluent observed at the chlorine contact tanks. Some foam visible at the contact tanks but did not appear to be included with the discharge. The final discharge pipe is not observable.**

UNIT PROCESS:	Gravity Belt Thickener

									YES	NO	NA
1.	Number of units			3							
2.	Number units in operation			Unit #2 on							
3.	Type of sludge treated:					Combination					
	Primary		Waste Activated	√		Other: **Skimmer from Secondary clarifiers**	√				
4.	Sludge fed how?		Continuous	√		Intermittent					
5.	Solids concentration in the influent sludge										
	Solids concentration in the thickened sludge					**6.2% Average, August 2010**					
6.	Signs of short-circuiting and/or overloading?									√	
7.	Effluent weirs level?										√
8.	Sludge collection system working properly?								√		
9.	Influent/effluent baffle systems working properly?										√
10.	Chemical addition?								√		
	Chemical used?	**Polymer, 855BS**		Dosage?	**260 lbs/day, Aug. 2010**						

GENERAL CONDITION:	GOOD	√	FAIR		POOR	

COMMENTS:	**Filtrate goes to plant drain and returns to aeration units.**

UNIT PROCESS:	**Anaerobic Digestion – Acid Phase**

							YES	NO	NA
1.	Number of units			**1**					
2.	Number units in operation			**1**					
	TYPE OF SLUDGE TREATED:								
3.	Primary		Waste Activated		Other: **GBTS**	√			
4.	Frequency of sludge application to digester(s):				**continuous**				
5.	Supernatant return rate:		**na**						
6.	pH adjustment provided?							√	
7.	pH adjustment utilized?								√
8.	Tank contents well mixed and relatively free of odors?						√		
9.	If diffused air is used, do diffusers require frequent cleaning?							√	
10.	Foaming problems evident?								√
11.	*LOCATION OF SUPERNATANT RETURN:* ***na***								
	Head		Primary		Other:				
	PROCESS CONTROL TESTING:								
	pH	**yes**							
	Reduction of volatile solids								
	Alkalinity								
12.	Dissolved Oxygen								
13.	Signs of short-circuiting or overloading?								

GENERAL CONDITION:	GOOD	√	FAIR		POOR	

COMMENTS: **The acid phase digestion has just started up with nothing documented in August 2010 but on line in September.**

UNIT PROCESS:	**Anaerobic Digestion – Gas Phase**

							YES	NO	NA
1.	Number of units			**4 Primary 2 Secondary**					
2.	Number units in operation			**All**					
	TYPE OF SLUDGE TREATED:								
3.	Primary	√	Waste Activated	√	Other:				
4.	Frequency of sludge application to digester(s):								
5.	Supernatant return rate:		**na**						
6.	pH adjustment provided?							√	
7.	pH adjustment utilized?								√
8.	Tank contents well mixed and relatively free of odors?								*
9.	If diffused air is used, do diffusers require frequent cleaning?								√
10.	Foaming problems evident?							√	
11.	*LOCATION OF SUPERNATANT RETURN:* ***na***								
	Head		Primary		Other:				
	PROCESS CONTROL TESTING:								
	pH	√							
	Reduction of volatile solids		**77% to 67% Aug. 2010**						
	Alkalinity	**2720-3100 mg/L**							
12.	Dissolved Oxygen								√
13.	Signs of short-circuiting or overloading?							√	

GENERAL CONDITION:	GOOD	√	FAIR		POOR	

COMMENTS: **Units 1-2 are primary digesters and discharge to secondary unit 5.
Units 3-4 are primary digesters and discharge to secondary unit 6.
Units 5 and 6 discharge to the digested solids storage tank.**

UNIT PROCESS:	CENTRIFUGATION

								YES	NO	NA
1.	Number of units				3					
2.	Number units in operation				1					
3.	*PURPOSE OF CENTRIFUGE*									
	Thickening		Dewatering	√	Other:					
4.	*OPERATION OF EQUIPMENT*									
	Manual		Automatic	√	Other:					
5.	Centrifuge run time			23-24 hrs/day						
6.	Volume of influent sludge flow: (gal/min)			187						
7.	Amount of cake produced: (lbs/day)			42.3						
8.	*SLUDGE SOLIDS*									
	Influent (%)	2.3	Effluent (%)	19.1						
9.	Conditioning chemical fed:			Z7583						
10.	Conditioning chemical dose:			675 lbs/day						
11.	Centrate return location:			Plant Drain						
12.	Signs of centrate return problems?								√	

GENERAL CONDITION:	GOOD	√	FAIR		POOR	

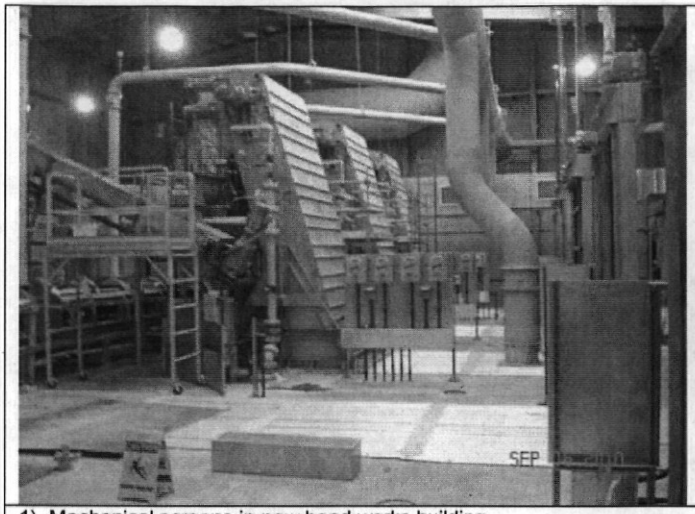
COMMENTS:	**Located at the Dewatering Building between the two cake storage pads. Pad use alternates with one pad filled first and then the next pad used. Solids are then removed from the first pad for land application. Drainage from the roof and surrounding roadways is send to the plant drainage system.**

UNIT PROCESS	PUMPING

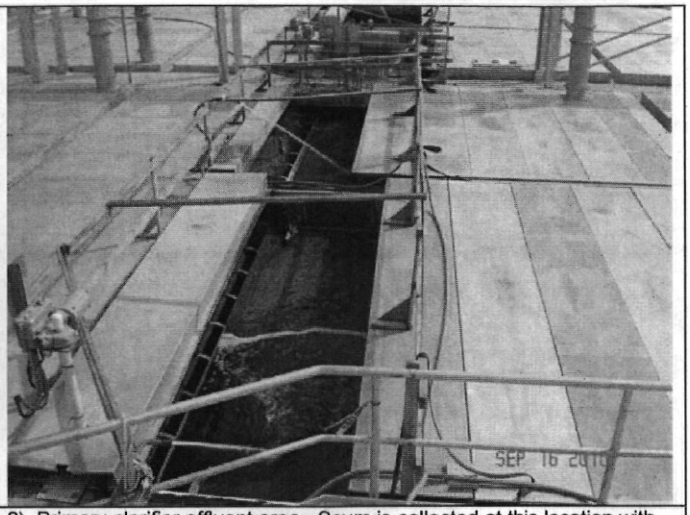
										YES	NO	NA
1.	Number of pumps							**Numerous, see below**				
2.	Number pumps in operation							**Numerous**				
3.	TYPE OF SLUDGE PUMPED:											
	Primary	√	Waste Activated		√	Other: Plant drains Non-Potable water	√					
	Secondary	√	Return Activated		√	Combination						
4.	TYPE OF PUMP:	Plunger			Diaphragm							
	Centrifugal:	√	Screwlift		Prog. Cavity	√	Other:					
5.	MODE OF OPERATION:	Manual			Automatic	√	Other:					
6.	Sludge volume pumped:	**gal/day**										
7.	Alarm system for equipment failures/overloads operational?											

GENERAL CONDITION:	GOOD	√	FAIR		POOR	

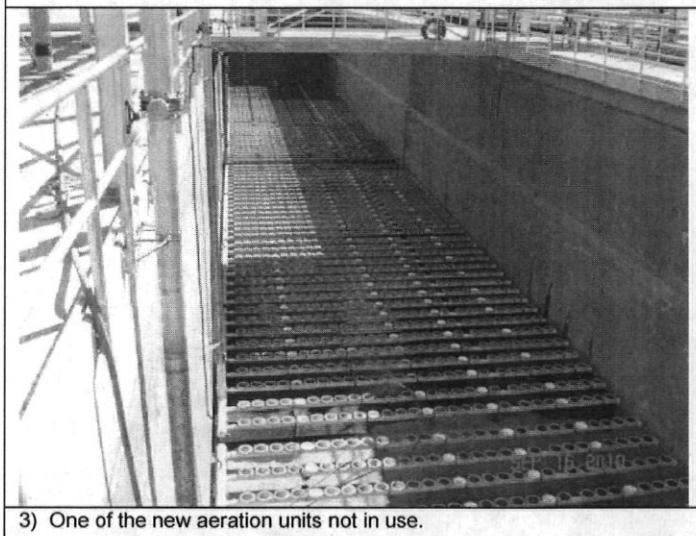
COMMENTS:	**A number of pumps are used throughout the plant with the following noted from the site visit or from the site plans.** • **Septage: 2 pumps available at the old and new station.** • **Primary solids: 5 pumps associated with units 1-4 (old) and 2 pumps with units 5-6 (new). Can be expanded with 2 additional pumps with the addition of units 7-8.** • **RAS Pump station 1: Existing station with 6 pumps.** • **RAS Pump station 2: New station with 3 pumps. Capable of expanding to 6 with the addition of two more secondary clarifiers.** • **Plant Drain Pump Station 1: 3** • **Plant Drain Pump Station 2: 4** • **Non-potable water: 4** • **Effluent Pumps: 4** • **Waste activated sludge pumps: 3, capable of expanding to 5 with addition of new clarifiers.** • **Gravity Belt Thickeners: 3, capable of expanding to 5 with the addition of two new GBTs.** • **Acid Phase digester: 4 pumps, capable of expanding to 6 with addition of a new digester.** • **Gas Phase digesters: 12 pumps, 2 for each of 6 units.** • **Digested solids storage pump station: 3** • **Centrifuge Pumps: 3, 1 for each centrifuge.**



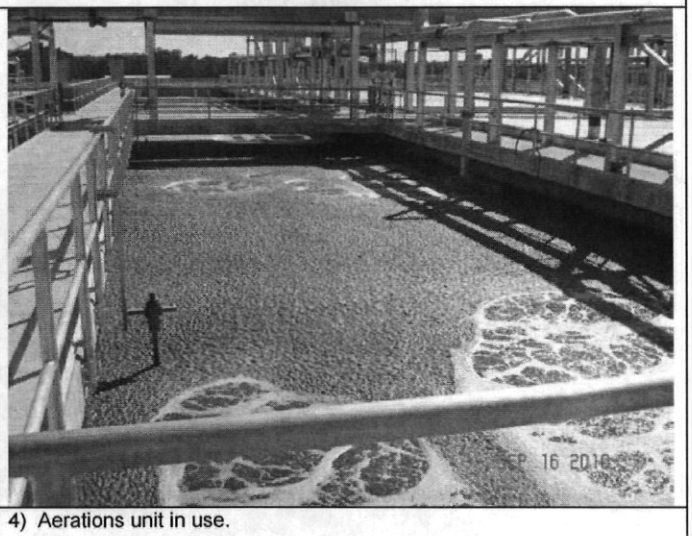
1) Mechanical screens in new head works building.



2) Primary clarifier effluent area. Scum is collected at this location with the effluent sent to the aeration units.

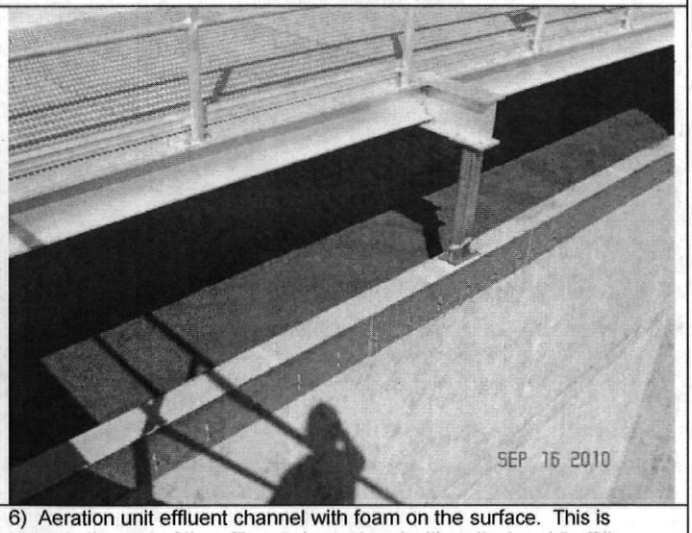


3) One of the new aeration units not in use.

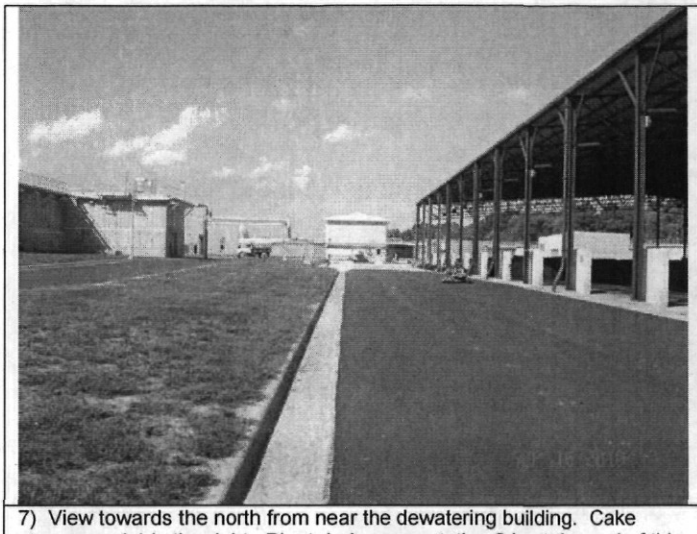


4) Aerations unit in use.

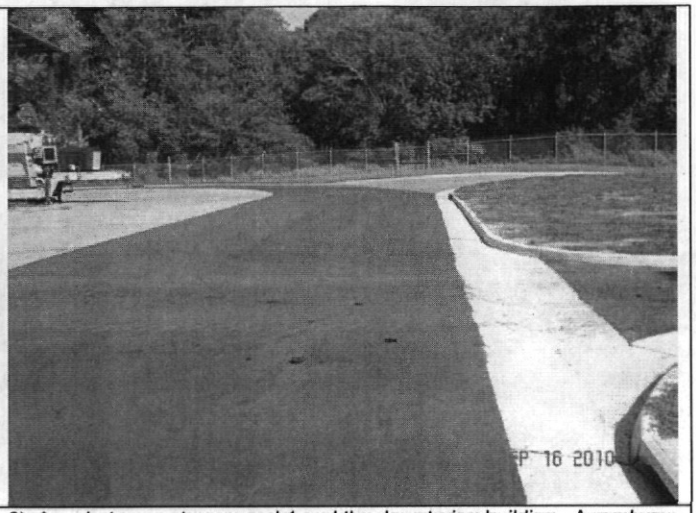
5) Aeration unit effluent going into the effluent channel for these units. No foam is observed in the areas with active effluent flow.



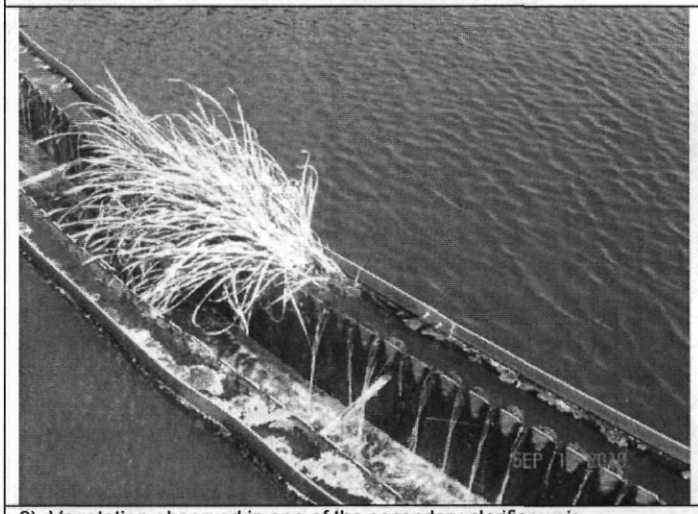
6) Aeration unit effluent channel with foam on the surface. This is towards the end of the effluent channel and with units 1 and 2 off line, the foam is allowed to form.



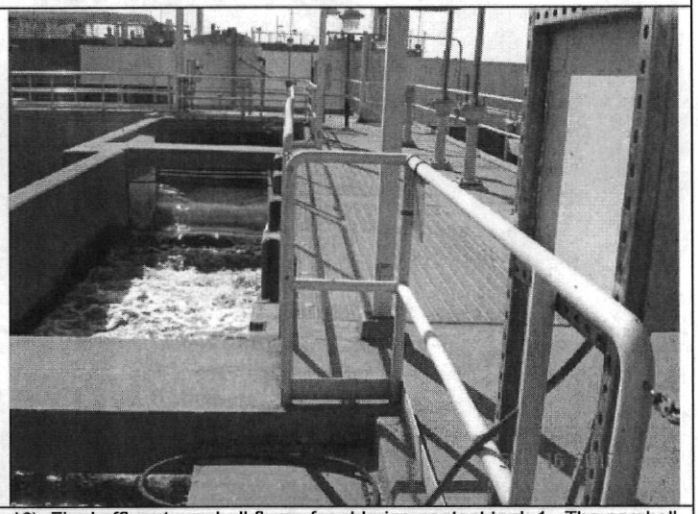
7) View towards the north from near the dewatering building. Cake storage pad 1 is the right. Plant drain pump station 2 is at the end of this roadway.



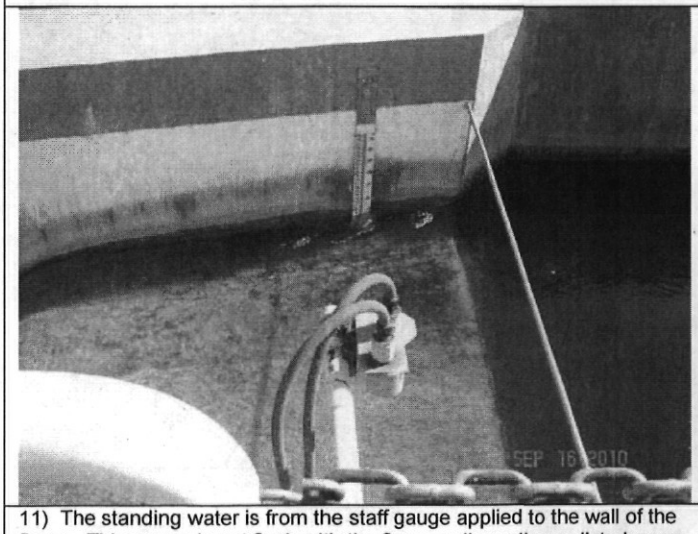
8) Area between storage pad 1 and the dewatering building. A roadway is located between the storage pads. Any water in this location is sent to the plant drain including roof runoff.



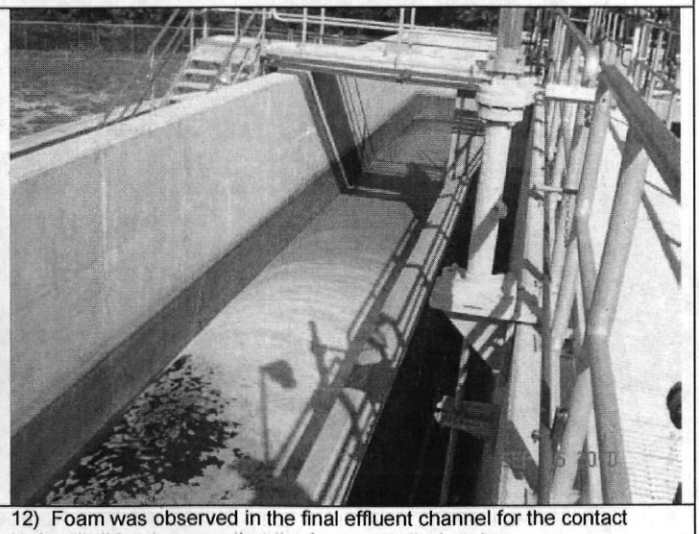
9) Vegetation observed in one of the secondary clarifier weir.



10) Final effluent parshall flume for chlorine contact tank 1. The parshall flume is not completely smooth with a standing wave observed on the left side of the flume.



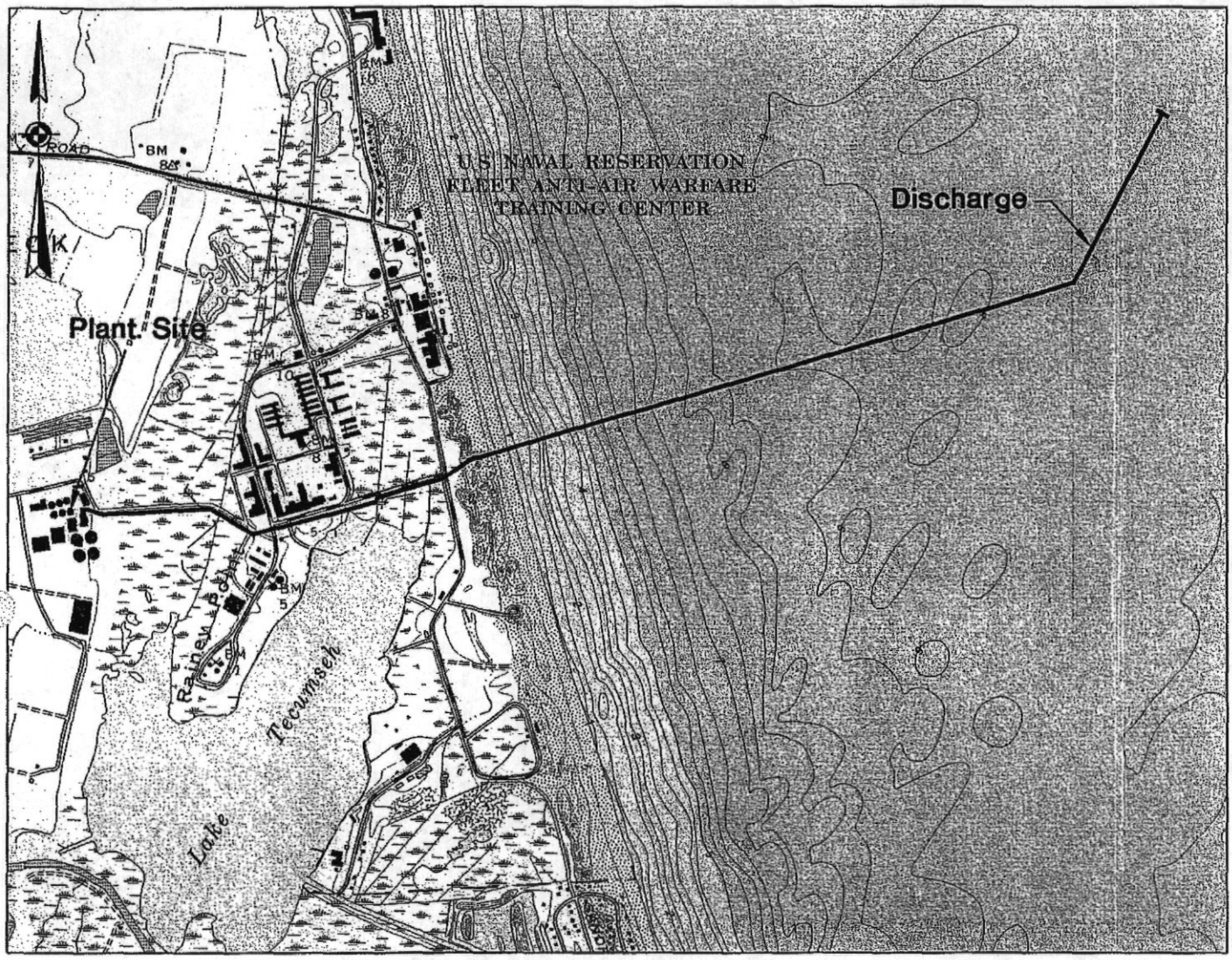
11) The standing water is from the staff gauge applied to the wall of the flume. This gauge is not flush with the flume wall creating a disturbance in the flow.



12) Foam was observed in the final effluent channel for the contact tanks. It did not appear that the foam was discharging.

ATTACHMENT 2

DISCHARGE LOCATION/TOPOGRAPHIC MAP

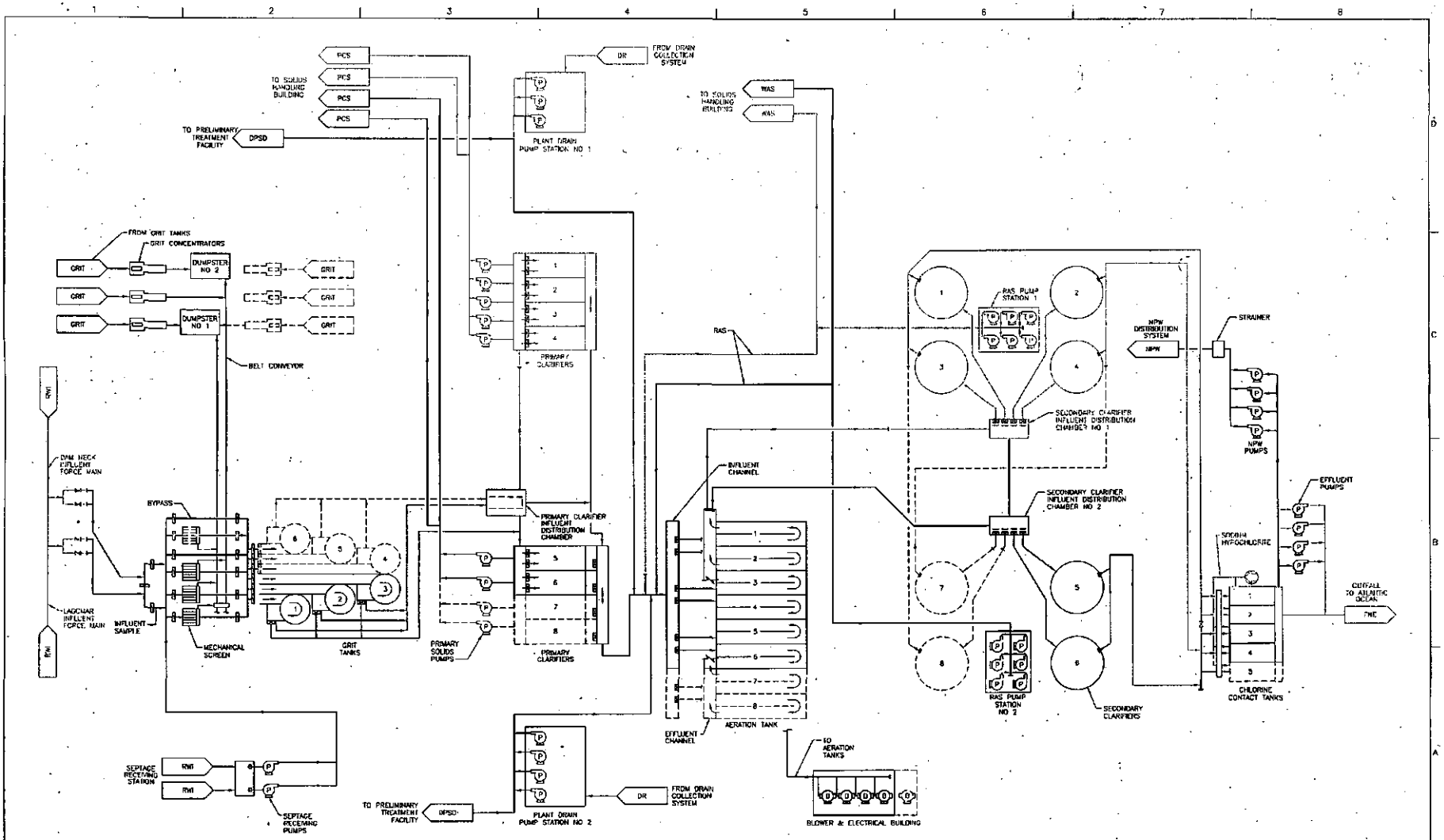


Location Map
for
Atlantic TP

June 2003 | Scale: 1"=2000' | USGS Map Reference

ATTACHMENT 3

SCHEMATIC/PLANS & SPECS/SITE MAP/ WATER BALANCE



HDR

ISSUE	DATE	DESCRIPTION
C	3/07	ISSUED FOR CONSTRUCTION
A	11/06	ISSUED FOR BID

PROJECT MANAGER: W. M'COY
DESIGNED BY: C. JACOBS
DRAWN BY: K. QUATTLEBAUM
CHECKED BY:
PROJECT NUMBER: 21766

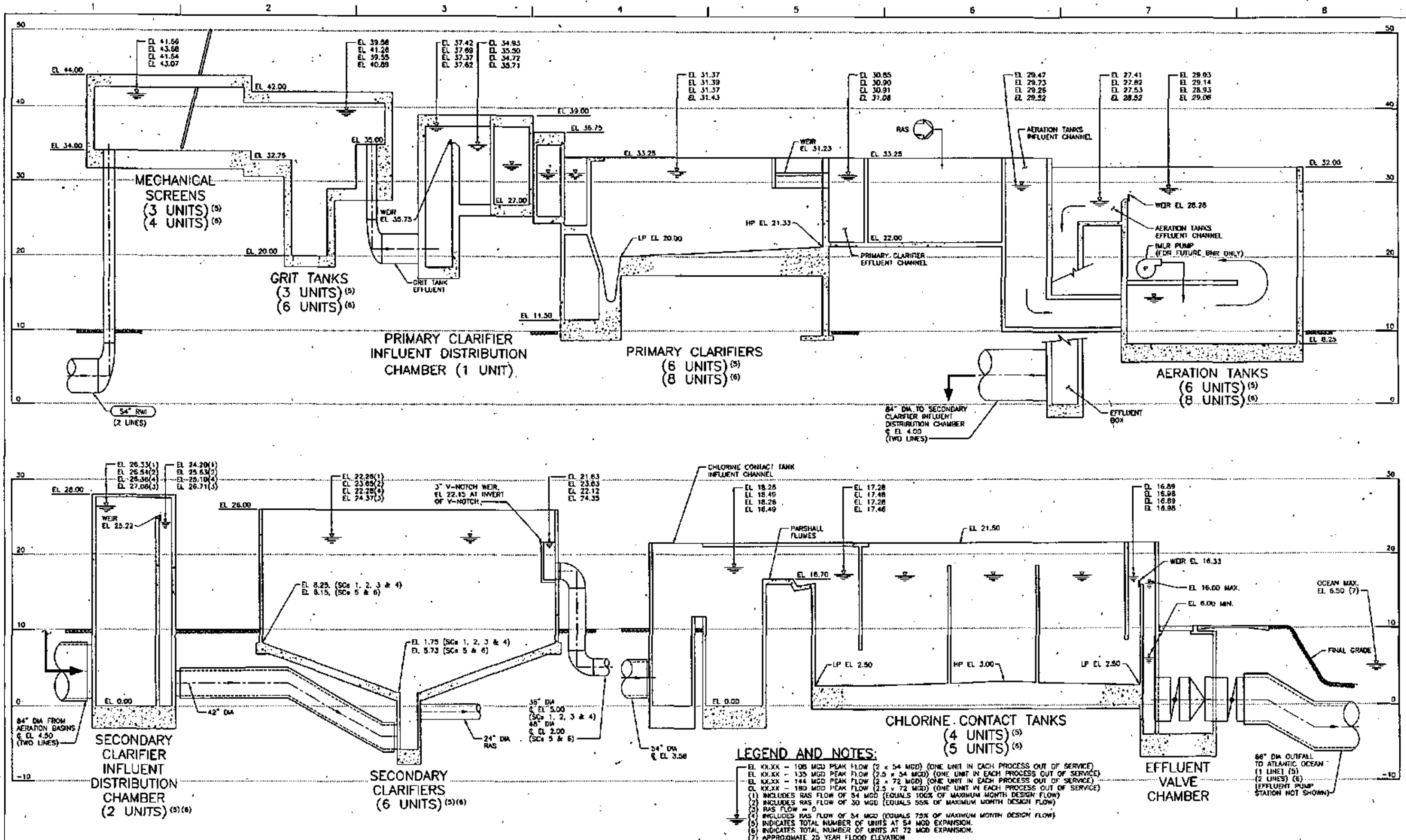
COMMONWEALTH OF VIRGINIA
WILLIAM S. M'COY
Cert. No. 016215
3/23/07

HAMPTON ROADS SANITATION DISTRICT
VIRGINIA BEACH, VIRGINIA

ATLANTIC TREATMENT PLANT
EXPANSION PHASE I, CONTRACT C

PROCESS FLOW DIAGRAM 1

FILENAME: 000-11.DWG
SCALE: NOT TO SCALE
DRAWING NUMBER: G-11
SHEET 11 OF 825



HDR

HDR Engineering, Inc.
5700 Lake Wright Dr.
Suite 300
Norfolk, VA 23502

ISSUE	DATE	DESCRIPTION
C	3/07	ISSUED FOR CONSTRUCTION
A	11/06	ISSUED FOR BID

PROJECT MANAGER: W. M'COY
DESIGNED BY: G.JACOBS/M.BENCHICH
DRAWN BY: K. QUATTLEBAUM
CHECKED BY:
PROJECT NUMBER 21766

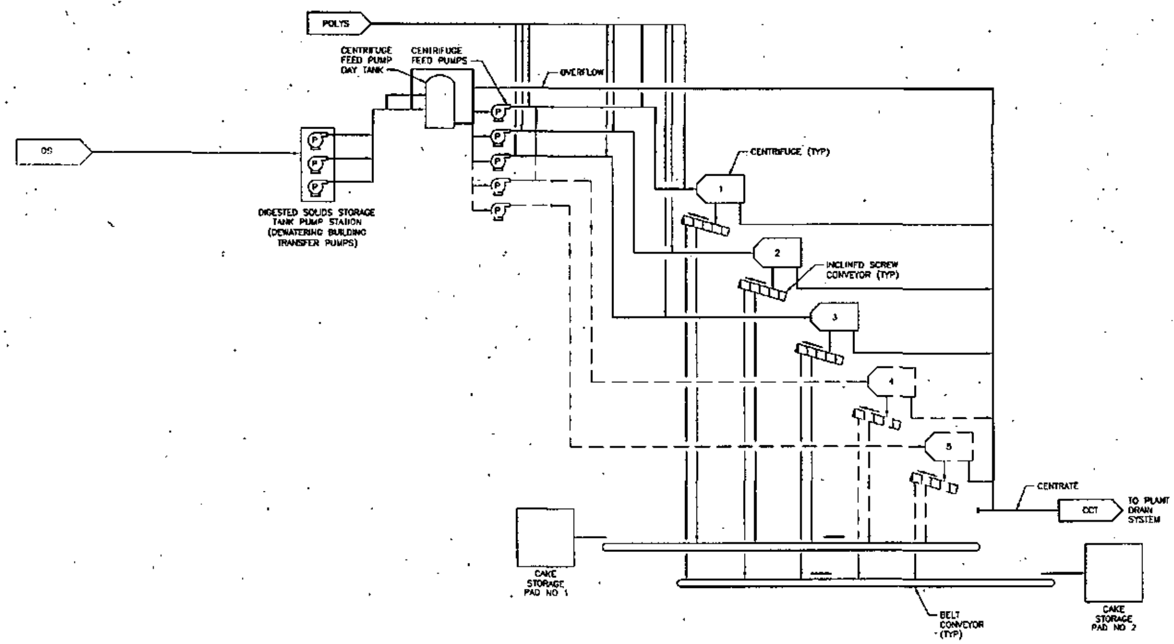
COMMONWEALTH OF VIRGINIA — WILLIAM R. M'COY — Cert. No. 019906 — 3/23/07 — PROFESSIONAL ENGINEER

HAMPTON ROADS SANITATION DISTRICT
VIRGINIA BEACH, VIRGINIA

ATLANTIC TREATMENT PLANT
EXPANSION PHASE I, CONTRACT C

HYDRAULIC PROFILE

FILENAME 00G-14.DWG
SCALE VERT: 1"=6', HORIZ: NTS
DRAWING NUMBER G-14
SHEET 14 OF 825



HDR Engineering, Inc.
5700 Lake Wright Dr.
Suite 300
Norfolk, VA 23502

ISSUE	DATE	DESCRIPTION
C	3/07	ISSUED FOR CONSTRUCTION
A	11/06	ISSUED FOR BID

PROJECT MANAGER: W. M'COY
DESIGNED BY: A. RODRIGUEZ
DRAWN BY: T. VAUGHAN
CHECKED BY:
PROJECT NUMBER: 21786

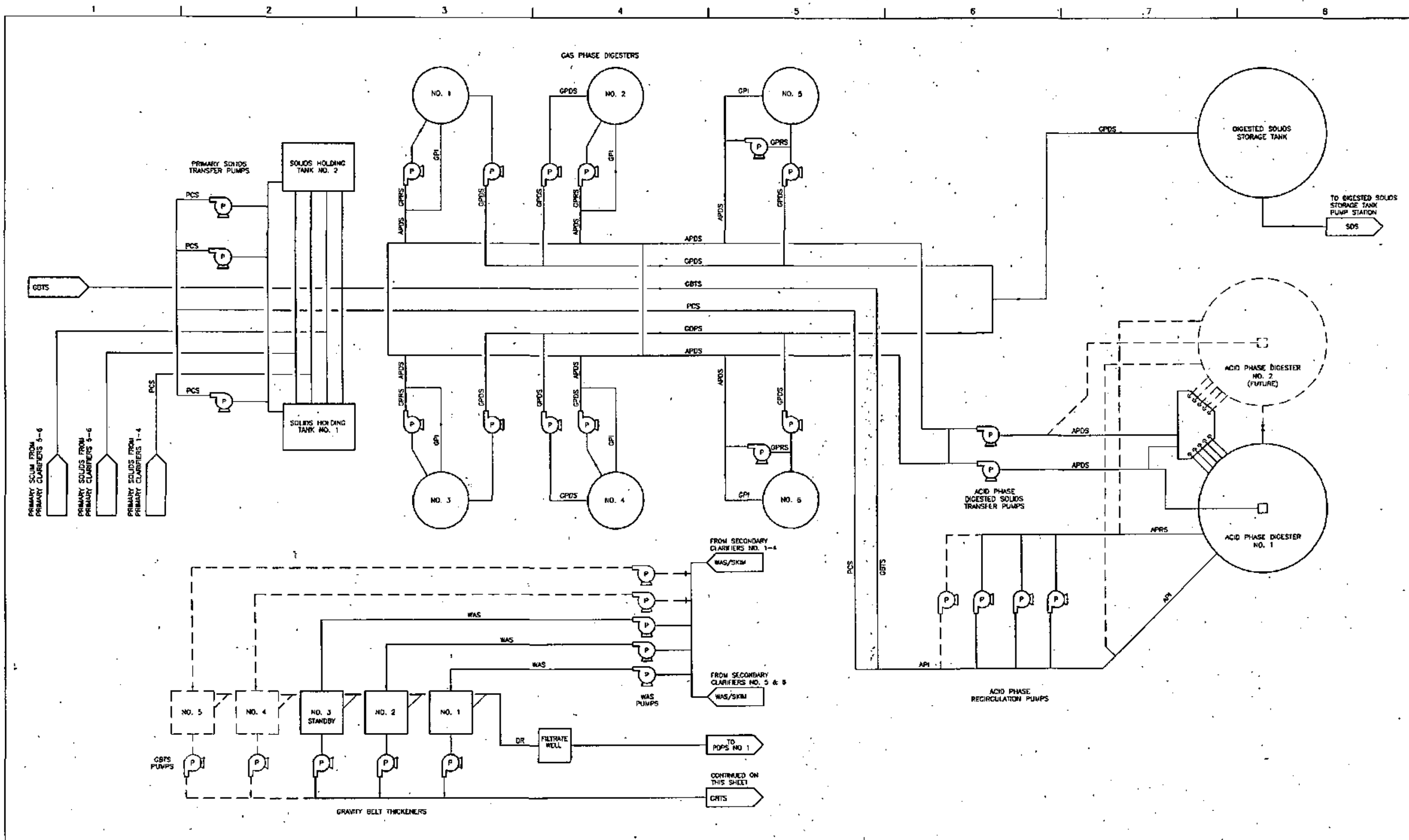
COMMONWEALTH OF VIRGINIA — WILLIAM S. M'COY — Cert. No. 016910 — 3/23/07 — PROFESSIONAL ENGINEER

HAMPTON ROADS SANITATION DISTRICT
VIRGINIA BEACH, VIRGINIA

ATLANTIC TREATMENT PLANT
EXPANSION PHASE I, CONTRACT C

PROCESS FLOW DIAGRAM 3

FILENAME: 00G-13.DWG
SCALE: NOT TO SCALE
DRAWING NUMBER: G-13
SHEET 13 OF 825



HDR

HDR Engineering, Inc.
5700 Lake Wright Dr.
Suite 300
Norfolk, VA 23502

ISSUE	DATE	DESCRIPTION
C	3/07	ISSUED FOR CONSTRUCTION
A	11/06	ISSUED FOR BID

PROJECT MANAGER:	W. M'COY
DESIGNED BY:	E. DAVISON
DRAWN BY:	M. LINKOUS
CHECKED BY:	
PROJECT NUMBER	21766

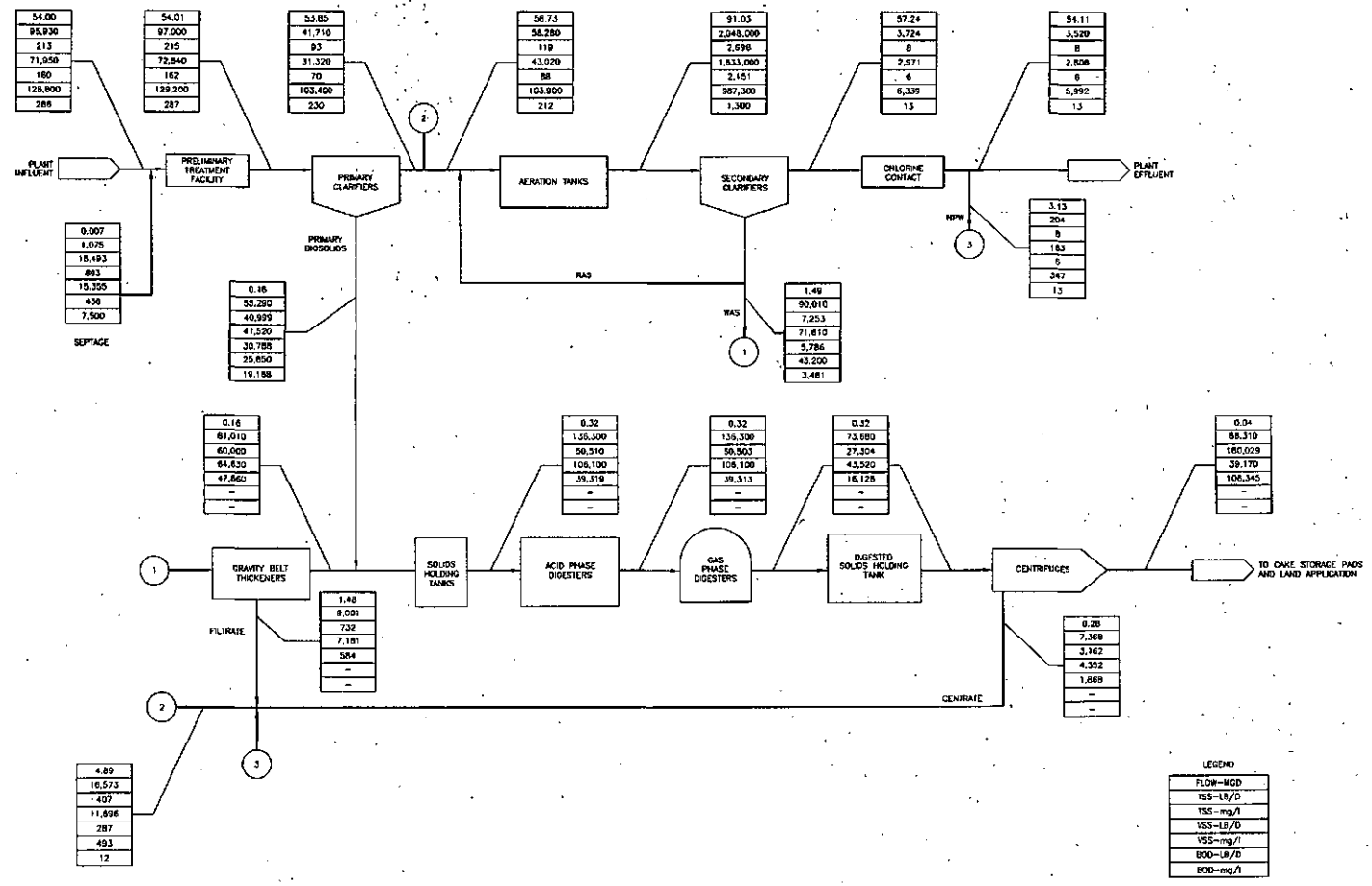
COMMONWEALTH OF VIRGINIA — WILLIAM S. M'COY — Cert. No. 016946 — 3/23/07 — PROFESSIONAL ENGINEER

HAMPTON ROADS SANITATION DISTRICT
VIRGINIA BEACH, VIRGINIA

ATLANTIC TREATMENT PLANT
EXPANSION PHASE I, CONTRACT C

PROCESS FLOW DIAGRAM 2

FILENAME	00G-12.DWG	DRAWING NUMBER	G-12
SCALE	NOT TO SCALE	SHEET 12 OF 825	



NOTE:
DESIGN MAXIMUM MONTH CONDITIONS

ISSUE	DATE	DESCRIPTION
C	1/07	ISSUED FOR CONSTRUCTION
A	11/06	ISSUED FOR BID

PROJECT MANAGER: W. M'COY
DESIGNED BY: G. JACOBS
DRAWN BY: K. OUATTLEBAUM
CHECKED BY:
PROJECT NUMBER: 21766

HDR Engineering, Inc.
3120 Lake Wright Dr.
Suite 300
Norfolk, VA 23502

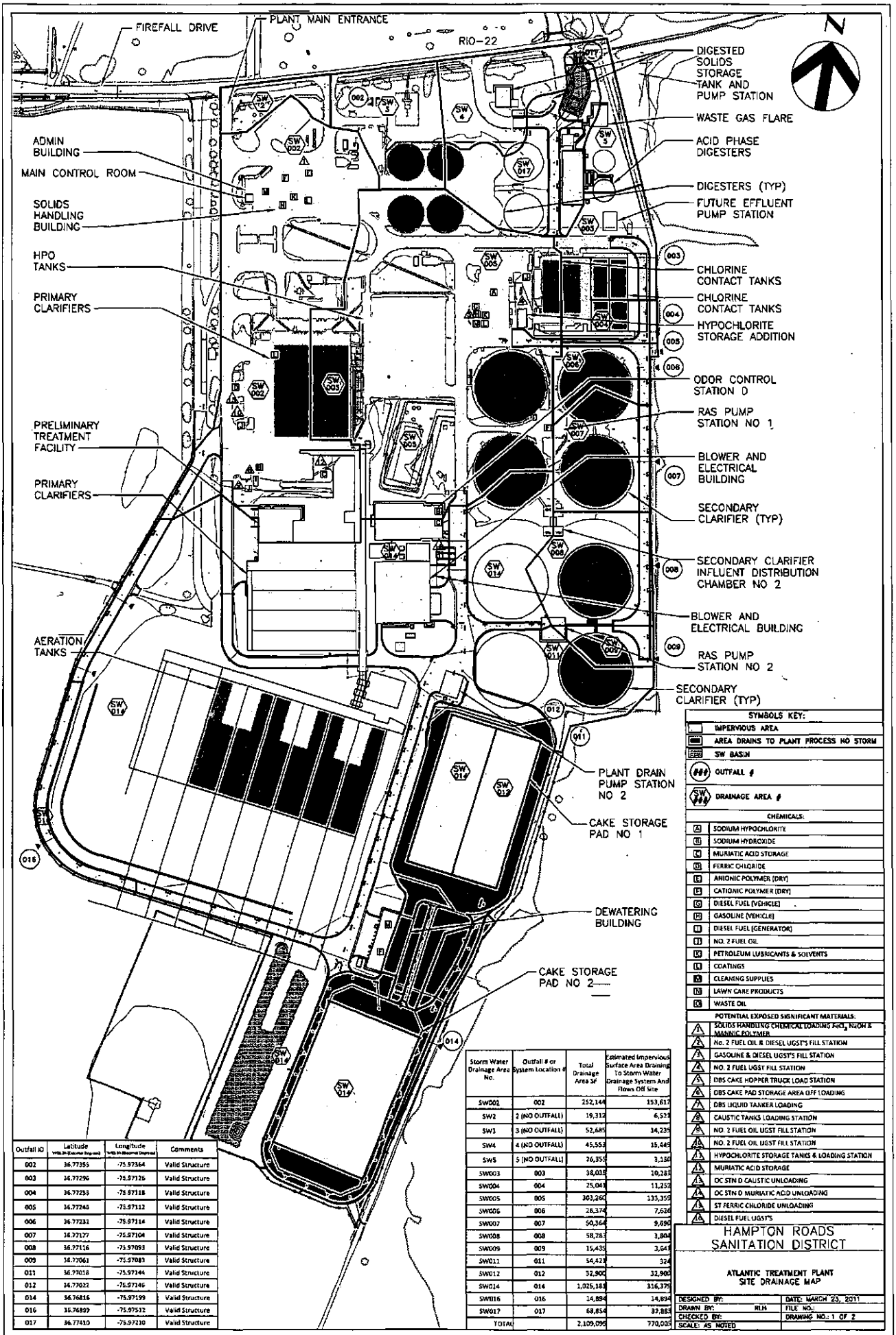
WILLIAM S. M'COY
Cert. No. 014918
3/23/07
Commonwealth of Virginia

HAMPTON ROADS SANITATION DISTRICT
VIRGINIA BEACH, VIRGINIA

ATLANTIC TREATMENT PLANT
EXPANSION PHASE I, CONTRACT C

PROCESS MASS BALANCE DIAGRAM

FILENAME: 00C-15.DWG
SCALE: NOT TO SCALE
DRAWING NUMBER: G-15
SHEET 15 OF 825



Outfall ID	Latitude	Longitude	Comments
002	36.77355	-75.97364	Valid Structure
003	36.77296	-75.97125	Valid Structure
004	36.77253	-75.97118	Valid Structure
005	36.77248	-75.97112	Valid Structure
006	36.77231	-75.97114	Valid Structure
007	36.77177	-75.97104	Valid Structure
008	36.77116	-75.97093	Valid Structure
009	36.77061	-75.97083	Valid Structure
011	36.77018	-75.97144	Valid Structure
012	36.77021	-75.97146	Valid Structure
014	36.76816	-75.97199	Valid Structure
016	36.76899	-75.97512	Valid Structure
017	36.77410	-75.97230	Valid Structure

Storm Water Drainage Area No.	Outfall # or System Location #	Total Drainage Area SF	Estimated Impervious Surface Area Draining To Storm Water Drainage System And Flows Off Site
SW002	002	252,144	153,617
SW2	2 (NO OUTFALL)	19,312	6,523
SW3	3 (NO OUTFALL)	52,685	34,239
SW4	4 (NO OUTFALL)	45,553	15,445
SW5	5 (NO OUTFALL)	26,355	3,150
SW003	003	38,035	10,281
SW004	004	25,043	11,252
SW005	005	303,260	133,359
SW006	006	28,374	7,626
SW007	007	50,364	9,690
SW008	008	58,783	3,804
SW009	009	15,435	3,648
SW011	011	54,423	324
SW012	012	32,900	32,900
SW014	014	1,025,183	316,379
SW016	016	14,894	14,894
SW017	017	68,854	37,883
TOTAL		2,109,095	770,005

SYMBOLS KEY:

- IMPERVIOUS AREA
- AREA DRAINS TO PLANT PROCESS NO STORM
- SW BASIN
- OUTFALL #
- DRAINAGE AREA #

CHEMICALS:

- A SODIUM HYPOCHLORITE
- B SODIUM HYDROXIDE
- C MURIATIC ACID STORAGE
- D FERRIC CHLORIDE
- E ANIONIC POLYMER (DRY)
- F CATIONIC POLYMER (DRY)
- G DIESEL FUEL (VEHICLE)
- H GASOLINE (VEHICLE)
- I DIESEL FUEL (GENERATOR)
- J NO. 2 FUEL OIL
- K PETROLEUM LUBRICANTS & SOLVENTS
- L COATINGS
- M CLEANING SUPPLIES
- N LAWN CARE PRODUCTS
- O WASTE OIL

POTENTIAL EXPOSED SIGNIFICANT MATERIALS:

- 1 SOLIDS HANDLING CHEMICAL LOADING Acl_3, NaOH & ANIONIC POLYMER
- 2 No. 2 FUEL OIL & DIESEL UGST'S FILL STATION
- 3 GASOLINE & DIESEL UGST'S FILL STATION
- 4 NO. 2 FUEL UGST FILL STATION
- 5 DBS CAKE HOPPER TRUCK LOAD STATION
- 6 DBS CAKE PAD STORAGE AREA OFF LOADING
- 7 DBS LIQUID TANKER LOADING
- 8 CAUSTIC TANKS LOADING STATION
- 9 NO. 2 FUEL OIL UGST FILL STATION
- 10 NO. 2 FUEL OIL UGST FILL STATION
- 11 HYPOCHLORITE STORAGE TANKS & LOADING STATION
- 12 MURIATIC ACID STORAGE
- 13 OC STN D CAUSTIC UNLOADING
- 14 OC STN D MURIATIC ACID UNLOADING
- 15 ST FERRIC CHLORIDE UNLOADING
- 16 DIESEL FUEL UGST'S

HAMPTON ROADS SANITATION DISTRICT

ATLANTIC TREATMENT PLANT
SITE DRAINAGE MAP

DESIGNED BY:	DATE: MARCH 23, 2011
DRAWN BY: RLH	FILE NO.:
CHECKED BY:	DRAWING NO.: 1 OF 2
SCALE: AS NOTED	

ATTACHMENT 4

TABLE I - DISCHARGE/OUTFALL DESCRIPTION

AND

APPROVED BIOSOLIDS APPLICATION SITES

TABLE I

NUMBER AND DESCRIPTION OF OUTFALLS

OUTFALL NO.	DISCHARGE LOCATION	DISCHARGE SOURCE (1)	TREATMENT (2)	FLOW (3)
001	364650N -755608W	Publicly Owned Treatment Works	Treatment consists of screening, grit removal, primary & secondary clarification, activated sludge aeration and chlorination.	Design 54 MGD
002	364630N -755830W	Stormwater	Good housekeeping and management/containment of stored materials.	0.015 MG
003	364630N -755815W	Stormwater	Good housekeeping and management/containment of stored materials.	0.002 MG
004	364615N -755815W	Stormwater	Good housekeeping and management/containment of stored materials.	0.001 MG
005	364615N -755815W	Stormwater	Good housekeeping and management/containment of stored materials.	0.017 MG
006	364615N -755815W	Stormwater	Good housekeeping and management/containment of stored materials.	0.001 MG
007	364615N -755815W	Stormwater	Good housekeeping and management/containment of stored materials.	0.002 MG
008	364615N -755815W	Stormwater	Good housekeeping and management/containment of stored materials.	0.002 MG
009	365745N -752445W	Stormwater	Good housekeeping and management/containment of stored materials.	0.001 MG
011	364613N -755817W	Stormwater	Good housekeeping and management/containment of stored materials.	0.002 MG
012	364613N -755817W	Stormwater	Good housekeeping and management/containment of stored materials.	0.002 MG
014	364605N -755819W	Stormwater	Good housekeeping and management/containment of stored materials.	0.052 MG
016	364608N -755830W	Stormwater	Good housekeeping and management/containment of stored materials.	0.001 MG
017	364627N -755820W	Stormwater	Good housekeeping and management/containment of stored materials.	0.004 MG

(1) List operations contributing to flow
(2) Give brief description, unit by unit
(3) Give maximum 30-day average flow for industry and design flow for municipal

Stormwater flows based on calculation for an annual average rainfall of 48.86" with runoff coefficients of 0.9 for impervious surface and 0.5 for pervious surface.

Atlantic STP VA0081248 Storm Water Application Attachment

IV. Narrative Description of Pollutant Sources

A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface (ft^2)	Total Area Drained (ft^2)	Total Runoff Vol in MG
002	153,617	252,144	0.015
003	10,281	38,035	0.002
004	11,252	25,041	0.001
005	133,359	303,260	0.017
006	7,626	26,374	0.001
007	9,690	50,364	0.002
008	3,804	58,283	0.002
009	3,641	15,439	0.0008
011	324	54,421	0.002
012	32,900	32,900	0.002
014	316,379	1,025,181	0.052
016	14,894	14,894	0.001
017	32,883	68,854	0.004

0.102 total

Using 0.9 & 0.5 as Impervious & pervious runoff Cafficients. Using a Storm Event of 0.011 ft of rain

Hampton Roads Sanitation District Permitted Agricultural Land 2011

Operator	Old Operator	City	Site	New ID	Acres	Latitude	Longitude	Location	Comments
Arnold Dawley		Virginia Beach	T-200		166.8	N 36° 43.130'	W 76° 2.899'	3300 block West Neck (West) & 2413 Indian River (South) Roads	
			T-869		142.3	N 36° 42.317'	W 76° 3.195'	3500 block West Neck Road (West Side)	
			T-63		19.6	N 36° 43.282'	W 76° 3.285'	2500 block Indian River Road (South Side)	
			T-833		43.3	N 36° 43.105'	W 76° 3.246'	3200 block West Neck Road (West Side)	
		Virginia Beach	T-210		54.9	N 36° 44.626'	W 76° 3.764'	2700 block West Neck Road (West Side)	
		Virginia Beach	T-217		88.0	N 36° 44.081'	W 76° 3.163'	2852 block West Neck Road (Northeast Corner)	
					514.9				
Clifton Cutrell, Jr.		Chesapeake	T-464		411.94	N 36° 35.501'	W 76° 9.495'	3400 block Cedarville (East) & 1516 Indian Creek (North) Roads	Change in Tract Number issued by FSA previously T-202; updated acerage from 406.1 to 411.94
					411.94				
David Salmons		Chesapeake	T-1494		475.9	N 36° 40.689'	W 76° 18.222'	Intersection Shillelagh & Atkinson Roads (Northwest Corner)	
David Salmons		Virginia Beach	T-242		97.0	N 36° 39.348'	W 76° 2.123'	Intersection Stowe Road North (North), Princess Anne (West) Roads	
					572.9				
Donald H. Horsley		Virginia Beach	T-9328		141.6	N 36° 34.450'	W 76° 4.387'	6152 Blackwater Road (East Side) Opposite West Gibbs Road	
			T-6		10.7	N 36° 34.126'	W 76° 4.474'	6152 Blackwater Road (East Side) Opposite West Gibbs Road	
			T-9		71.9	N36°39'05.40"	W76°06'48.50"	Land of Promise Rd	New Permit
			T-425		107.3	N 36° 35.854'	W 76° 5.057'	5720 Blackwater Road (East Side) Opposite Hungarian Road	
			T-423		135.5	N 36° 34.337'	W 76° 4.772'	6273 Blackwater (West) & West Gibbs (North & South) Roads	
			T-4345		194.5	N 36° 40.092'	W 76° 5.717'	4204 Blackwater Road (East side).	
			T-571vb		228.0	N 36° 34.728'	W 76° 6.892'	2324 Indian Creek Road (South Side)	
			T-1435		159.7	N 36° 35.140'	W 76° 6.244'	2324 Indian Creek Road (North Side)	
			T-460		175.2	N 36° 38.470'	W 76° 5.245'	4780 Blackwater Road (East Side) Opposite Carolina Road	
			T-1454vb		80.3	N 36° 39.096'	W 76° 5.929'	Blackwater Road (West Side) North of Land of Promise Road	
			T-4067		115.0	N 36° 39.587'	W 76° 6.760'	West End of Ives Road off of Blackwater Road	
			T-1402		65.4	N 36° 38.486'	W 76° 5.907'	Blackwater & Land of Promise Roads (Southeast Corner)	
			T-2203		115.3	N 36° 38.431'	W 76° 6.654'	Land of Promise (South) & Caroline (North) Roads; West of T-419	
			T-419		306.9	N 36° 38.681'	W 76° 6.163'	Land of Promise Road (North & South Sides)	
			T-456		92.1	N 36° 38.516'	W 76° 7.027'	Land of Promise Road (South); West of T-2203	
			T-459		126.8	N 36° 38.498'	W 76° 7.315'	Land of Promise Road (South); West of T-456, City line splits	
Donald H. Horsley		Virginia Beach	T-452		74.3	N 36° 35.730'	W 76° 5.439'	Blackwater road (West Side); South of Hungarian Road	
Donald H. Horsley		Virginia Beach	T-9228		39.7	N 36° 36.294'	W 76° 5.102'	Blackwater road (East Side); @ "S" Turn @ Blackwater	
Donald H. Horsley		Virginia Beach	T-571vb		52.0	N 36° 34.973'	W 76° 7.161'	2324 Indian Creek Road (North Side)	
Donald H. Horsley		Virginia Beach	T-1435		55.9	N 36° 34.937'	W 76° 6.420'	2324 Indian Creek Road (North Side)	
Donald H. Horsley		Virginia Beach	T-9209		182.6	N 36° 35.192'	W 76° 6.876'	2300 block Indian Creek Road (North & South Sides)	
Donald H. Horsley		Virginia Beach	T-9225		60.1	N 36° 35.921'	W 76° 5.474'	Hungarian & Blackwater Roads (Southeast Side)	
Donald H. Horsley		Virginia Beach	T-9226		41.8	N 36° 35.632'	W 76° 5.872'	Hungarian Road (South Side); West of T-9225	
Donald H. Horsley		Virginia Beach	T-9229		30.3	N 36° 35.565'	W 76° 6.693'	Hungarian Road (South Side); East of Chesapeake City Line	
Donald H. Horsley		Chesapeake	T-472		84.9	N 36° 34.929'	W 76° 10.644'	Galibush Road (East Side)	
Donald H. Horsley		Chesapeake	T-711		96.5	N 36° 35.928'	W 76° 7.684'	2100 block Sanderson Road (East Side); North of Hungarian Road	
Donald H. Horsley		Chesapeake	T-230		110.1	N 36° 36.181'	W 76° 8.040'	Sanderson Road (Southwest Corner); East of Right Angle Turn	
Donald H. Horsley		Chesapeake	T-9		87.6	N 36° 34.386'	W 76° 8.239'	Ansell Road @ End Just Off Baum Road	
Donald H. Horsley		Chesapeake	T-16		21.7	N 36° 35.630'	W 76° 7.828'	Hungarian Road (South Side); East of Sanderson Road	
Donald H. Horsley		Chesapeake	T-193		254.6	N 36° 35.501'	W 76° 8.611'	Indian Creek road (North Side); West of sanderson Road	
Donald H. Horsley		Chesapeake	T-277		55.8	N 36° 34.978'	W 76° 7.844'	2100 block indian Creek road (North Side)	
Donald H. Horsley		Chesapeake	T-254		55.8	N 36° 35.717'	W 76° 8.049'	Intersection Hungarian & Sanderson Roads	
Donald H. Horsley		Chesapeake	T-535		23.6	N 36° 34.950'	W 76° 8.437'	2100 block Indian Creek Road (South Side); East of T-1268	
Donald H. Horsley		Chesapeake	T-1268		37.8	N 36° 34.849'	W 76° 8.149'	2100 block Indian Creek Road (South Side)	
Donald H. Horsley		Chesapeake	T-571cp		54.0	N 36° 34.651'	W 76° 7.536'	2324 Indian Creek Road & Baum Road	

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Operator	Old Operator	City	Site	New ID	Acres	Latitude	Longitude	Location	Comments
					3545.3				
Donald H. Horsley		Chesapeake	T-718		117.9	N 36° 42.003'	W 76° 8.291'	Carter Road (East Side); Near Runway	
			T-1334		69.8	N 36° 41.287'	W 76° 8.708'	South of Blue Ridge Road @End of Carter Road	
			T-1383		78.5	N 36° 41.361'	W 76° 9.402'	South Side of Blue Ridge Road, West of T-1334	
			T-625		249.0	N 36° 41.954'	W 76° 9.857'	Bedford Street (East & West Sides); North of Blue Ridge Road	
			T-1321		45.1	N 36° 34.044'	W 76° 8.190'	Ansell Road @ End Just Off Baum Road	
					560.3				
Edgar Lane		Chesapeake	T-491		83.32	N36° 38' 53.11"	W76° 08' 17.47"	Long Ridge Rd & Carolina Rd	
Edgar Lane		Chesapeake	T-198		160.63	N36° 37' 27.73"	W76° 08' 42.34"	Cedarville Rd & Head of River Rd	
			T-405		348.55	N36° 37' 27.73"	W76° 08' 42.34"	Cedarville Rd & Sanderson Rd	
			T-523		49.65	N36° 38' 13.98"	W76° 07' 41.57"	Head of River Rd (north side)	
			T-1267		87.45	N36° 38' 13.98"	W76° 07' 41.57	Long Ridge Rd & Land of Promise Rd	
			T-4099		68.78	N36° 37' 348.70"	W76° 08' 31.68"	Long Ridge Rd & Carolina Rd	
			T-9451		16.41	N36° 38' 07.51"	W76° 08' 38.35"	Carolina Rd (south side)	
			T-9452		58.96	N36° 38' 07.48"	W76° 08' 51.50"	Carolina Rd (south side)	
			T-9620		109.41	N36° 37' 24.88"	W76° 07' 52.94"	Head of River Rd (north side)	
			T-9621		2.15	N36° 37' 22.48	W76° 08' 40.50"	Head of River Rd (north side)	
			T-9634		47.85	N36° 36' 28.09'	W76° 07' 42.89"	Sanderson Road (east side)	
					1033.16				
G. C. Nicholas, Jr.		Chesapeake	T-5		230.7	N 36° 33.531'	W 76° 14.230'	Ballahack Road (South Side); West of Backwoods Road	
					230.7				
Glenn H. Brunner		Chesapeake	T-231		61.4	N 36° 40.805'	W 76° 8.398'	Fentress Airfield Road (East Side); North of Pocaty Road	
			T-283		72.8	N 36° 38.653'	W 76° 7.977'	2333 Land of Promise Road (South Side)	
			T-542		96.7	N 36° 36.472'	W 76° 9.932'	Cedarville Road (West Side); South of Sanderson Road	
					230.9				
Guy Newman		Virginia Beach	T-68		78.1	N 36° 48.667'	W 76° 2.991'	800 block London Bridge Road (East Side); Along RR Tracks	
			T-4063		62.5	N 36° 48.170'	W 76° 3.399'	London Bridge Road (East Side) Along RR Tracks, South of T-68	
			T-41		58.4	N 36° 50.248'	W 76° 2.730'	Intersection Potters (North) & Sludge Roads	
			T-137		107.3	N 36° 47.320'	W 76° 2.801'	London Bridge (East) & Dam Neck (North) Roads	
			T-161		63.2	N 36° 47.526'	W 76° 2.248'	1900 bolck Harpers Road (West Side)	
			T-4066		41.7	N 36° 49.272'	W 76° 2.962'	500 block London Bridge Road (East Side)	
			T-4064		19.7	N 36° 47.783'	W 76° 3.309'	Swamp Road (West Side)	
			T-123		85.2	N 36° 50.170'	W 76° 1.006'	Intersection Oceana Blvd. & First Colonial Road	
			T-42		165.9	N 36° 49.122'	W 76° 0.633'	500 block Oceana Blvd & First Colonial Road	
			T-47		27.8	N 36° 48.924'	W 76° 0.321'	500 block Oceana Blvd (East Side)	
			T-4065		14.0	N 36° 48.028'	W 76° 0.401'	Harpers Road (North) & Oceana Blvd (West)	
			T-155		45.0	N 36° 48.525'	W 76° 0.961'	Princess Anne & Phantom Blvd (North side)	
			T-4026		210.6	N 36° 46.115'	W 75° 58.569'	Firefall Drive (South); At End	
Guy Newman		Virginia Beach	T-1419		94.0	N 36° 35.084'	W 76° 5.334'	2820 Indian Creek Road (West Side)	
Guy Newman		Virginia Beach	T-1444		71.2	N 36° 34.010'	W 76° 5.555'	6356 Crags Causeway (East Side)	
Guy Newman		Virginia Beach	T-446		215.9	N 36° 33.608'	W 76° 5.591'	Crags Causeway (North & South Sides); West of West Gibbs Road	
					1380.5				
Guy Newman		Chesapeake	T-1220		284.7	N 36° 39.173'	W 76° 11.177'	800 block Beaver Dam Road (North & South Sides)	
			T-424		179.6	N 36° 34.906'	W 76° 11.160'	Gallbush Road (East & West Sides); South of Indian Creek	
			T-428		405.0	N 36° 34.389'	W 76° 14.088'	1100 block Ballahack Road (North Side)	
			T-1325		196.9	N 36° 40.149'	W 76° 7.950'	2025 Pocaty Road (North & South Sides)	
			T-48		116.1	N 36° 38.027'	W 76° 15.075'	Benefit & St. Brides Roads (Northwest Corner)	
			T-1457		149.4	N 36° 37.597'	W 76° 11.501'	Ballentine Road (North Side); East of RR Tracks	

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Operator	Old Operator	City	Site	New ID	Acres	Latitude	Longitude	Location	Comments
			T-221		264.6	N 36° 37.440'	W 76° 10.147'	1200 block Head of River Road (South Side)	
					1596.3				
H. M. Dudley, Jr.		Virginia Beach	T-328		77.8	N 36° 37.149'	W 76° 2.342'	Intersection Princess Anne & Old & New Pungo Ferry Roads	
			T-343		16.5	N 36° 36.616'	W 76° 0.840'	Morris Neck Road (West Side); Opposite Campbells Road	
			T-1530		25.2	N 36° 36.412'	W 76° 1.010'	Morris Neck Road (East Side); Opposite Fitztown Road	
			T-433		66.8	N 36° 39.387'	W 76° 5.761'	4490 Blackwater Road (East Side)	New FSA mapping change in acreage from 70.03 to 66.80
			T-1397		31.4	N 36° 39.057'	W 75° 59.391'	Drum Point Road (North Side); East Side Muddy Creek Road	
			T-4244		145.1	N 36° 40.939'	W 76° 1.693'	Princess Anne Road (West Side); South side of jarvis Road	
					362.8				
H. M. Dudley, Jr.		Chesapeake	T-213		189.5	N 36° 39.304'	W 76° 9.757'	1700 block Land of Promise road (South Side)	
			T-707		123.8	N 36° 39.623'	W 76° 10.072'	1600 block Land of Promise road (South Side)	
					313.3				
Herbert L."Pete" Powers		Chesapeake	T-85		30.5	N 36° 33.446'	W 76° 12.790'	Ballahack Road (South Side); West of T-33 & East of T-68cp	
			T-68cp		44.1	N 36° 33.622'	W 76° 13.041'	Ballahack Road (North & South Sides); West of T-9431	
					74.6				
Howard Salmons		Virginia Beach	T-1250		23.8	N 36° 37.602'	W 76° 2.463'	Princess Anne Road (West Side); @ Grain Elevator	
			T-427		206.0	N 36° 36.099'	W 76° 1.966'	Princess Anne Road (East Side); South of Creeds School	
			T-1286		20.3	N 36° 38.890'	W 76° 2.357'	Stowe Road South (North Side) West of "S" Turn	
			T-1262		39.0	N 36° 39.186'	W 76° 1.683'	Intersection Princess Anne (Northeast), Mill Landing (North) Roads	
			T-2106		50.1	N 36° 39.247'	W 76° 1.483'	Mill Landing Road (Adjoining & North of T-1262)	
			T-297		40.4	N 36° 40.026'	W 76° 1.914'	1209 Princess Anne Road (West Side)	
			T-339		40.5	N 36° 38.395'	W 76° 2.460'	894 Princess Anne Road (West Side); North of Creeds School	
					420.1				
J. W. "Sonny" Freeman		Virginia Beach	T-332vb		145.7	N 36° 35.449'	W 76° 1.869	Fitztown Road (South Side) @ West End	
			T-313		47.9	N 36° 35.030'	W 75° 59.865'	Grimstead Road @ End Off of Back Bay Landing Road	
					193.6				
James Dana Todd		Chesapeake	T-9372		39.9	N 36° 36.897'	W 76° 9.460'	1300 block Sanderson Road (North Side)	
			T-9373		121.4	N 36° 37.244'	W 76° 9.328'	Intersection Head of River (South) &Cedarville (West) Roads	
			T-461		126.6	N 36° 37.703'	W 76° 9.354'	Intersection Long Ridge (North) & Peoples (North) Roads	
			T-931		63.7	N 36° 38.017'	W 76° 9.411'	2000 block Long Ridge Road (East Side)	
			T-1264		90.3	N 36° 38.346'	W 76° 8.981'	1800 block Long Ridge Road (East Side)	
			T-650		80.6	N 36° 38.006'	W 76° 8.272'	Carolina Road (North & South Side); West of T-566	
			T-566		100.8	N 36° 37.795'	W 76° 8.096'	Carolina Road (South Side); West of T-9374	
			T-9374		157.1	N 36° 37.878'	W 76° 7.547'	Carolina Road (South Side); West of VB City Line	
			T-434		37.3	N 36° 37.422'	W 76° 8.285'	1600 block Head of River Road (North Side)	
			T-1215		164.0	N 36° 36.701'	W 76° 7.602'	800 block Head of River (North) & Beaver Dam (South) Roads	
			T-9234		30.7	N 36° 36.940'	W 76° 8.407'	1700 block Head of River Road (South Side)	
			T-9236		89.6	N 36° 38.318'	W 76° 10.778'	1500 block Head of River Road (South Side)	
			T-1454		116.2	N 36° 37.651'	W 76° 9.032'	1400 block Head of River Road (North Side) @ Cedarville Road	
James Dana Todd		Chesapeake	T-3479		91.58	N36° 38' 1.05"	W76° 10' 37.57"	Head of River Road (north side)	
			T-9376		67.82	N36° 37' 58.57"	W76° 07' 26.07"	Old Carolina Road (south side)	
			T-9604		100.17	N36° 38' 35.63	W76° 09' 57.98"	Beaver Dam Rd & Long Ridge Rd	
					1477.8				
John Matyiko		Virginia Beach	T-433 P		78.7	N 36° 39.363'	W 76° 5.431'	4490 Blackwater Road (East Side)	New FSA mapping change in acreage from 63.9 to 78.7
					78.7				

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Operator	Old Operator	City	Site	New ID	Acres	Latitude	Longitude	Location	Comments
Michael Salmons		Virginia Beach	T-1339		81.5	N 36° 39.757'	W 76° 0.442'	Charity Neck Road (West Side); South of Gum Bridge Road	
Michael Salmons		Virginia Beach	T-314vb		280.7	N 36° 35.591'	W 76° 0.640'	Back Bay Landing Road (End) & Fitztown Road @ Salmons Road	
Michael Salmons		Virginia Beach	T-1256		69.8	N 36° 35.195'	W 75° 59.861'	Back Bay Landing Road (End)	
Michael Salmons		Virginia Beach	T-1528		45.1	N 36° 35.231'	W 76° 0.746'	Back Bay Landing Road (South Side); East of Princess Anne Road	
Michael Salmons		Virginia Beach	T-1306		52.8	N 36° 39.541'	W 76° 1.695'	Princess Anne Road (East Side); North of Mill Landing Road	
Michael Salmons		Virginia Beach	T-370		16.7	N 36° 33.771'	W 75° 59.848'	Pocahontas Club Road (East Side)	
Michael Salmons		Virginia Beach	T-1529		99.3	N 36° 35.439'	W 76° 0.944'	Intersection Princess Anne, Fitztown, & Back Bay Roads	
Michael Salmons		Virginia Beach	T-315		42.0	N 36° 35.668'	W 76° 1.820'	Fitztown Road (North Side) @ West End	
Michael Salmons		Virginia Beach	T-1516		63.4	N 36° 38.568'	W 76° 2.179'	Intersection Princess Anne & Stowe Road South (Southwest Corner)	
Michael Salmons		Virginia Beach	T-1228		24.0	N 36° 35.841'	W 76° 0.909'	Fitztown Road Across From Salmons Road	
Michael Salmons		Virginia Beach	T-327		88.9	N 36° 38.444'	W 76° 0.851'	Intersection Morris Neck & Mill Landing Roads	
Michael Salmons		Virginia Beach	T-1238		8.5	N 36° 35.377'	W 76° 0.281'	Back Bay Landing Road (North Side); West of T-1256	
					872.7				
L & M Farms		Chesapeake	T-274		234.8	N 36° 38.442'	W 76° 11.106'	700 block Head of River (North) & Beaver Dam (South) Roads.	
			T-579		132.6	N 36° 39.817'	W 76° 11.134'	1755 Centerville Turnpike (East Side)	
			T-233		129	N 36° 37.862'	W 76° 11.218'	717 Head of River Road (South Side)	
			T-508		22.9	N 36° 38.241'	W 76° 11.395'	700 block Head of River Road (North Side)	
			T-1216		126	N 36° 39.108'	W 76° 10.547'	968 Beaver Dam Road (North Side)	
			T-5241		133.4	N 36° 37.424'	W 76° 11.019'	Ballentine Road (Northeast Corner); @ End of Road	
			T-9255		36.9	N 36° 37.615'	W 76° 10.483'	1000 block Head of River Road (South Side); @ Long Ridge Road	
					815.6				
Marvin C. Etheridge, II		Virginia Beach	T-245		64.5	N 36° 39.204'	W 76° 2.360'	North Stowe Road (North & South Sides); @ Turn In Road	
			T-372		34.2	N 36° 36.035'	W 76° 1.416'	Princess anne Road (East Side); South of Morris Neck Road	
			T-396		20.6	N 36° 35.712'	W 76° 1.495'	Fitztown Road (North Side)	
			T-365		60.5	N 36° 37.258'	W 76° 1.919'	Princess anne Road (East Side); Opposite Old Pungo Ferry Road	
					179.8				
North Landing Farms		Virginia Beach	T-78		311.2	N 36° 44.938'	W 76° 5.242'	3328 North Landing Road (North Side)	
			T-180		77.4	N 36° 44.917'	W 76° 5.727'	3328 North Landing Road (North Side); West of T-78	
					388.6				
O. Glenn Weatherly		Chesapeake	T-2489		120.3	N 36° 38.117'	W 76° 9.056'	1953 Long Ridge Road (East Side)	
			T-271		96.9	N 36° 38.007'	W 76° 11.983'	Intersection Battlefield Blvd & Centerville Turnpike (East Side)	
			T-1251		95.8	N 36° 37.256'	W 76° 11.493'	Ballentine Road (South Side) @ End, East of RR Tracks	
			T-9431		6.0	N 36° 33.535'	W 76° 12.895'	500 Ballahack Road (South Side)	
			T-577		30.0	N 36° 33.530'	W 76° 11.796'	Battlefield Blvd (East Side); South of Intersection Ballahack Road	
			T-33		38.1	N 36° 33.468'	W 76° 12.653'	400 Ballahack Road (South Side)	
			T-9400		85.8	N 36° 33.426'	W 76° 13.364'	600 Ballahack Road (South Side); West of T-68cp	
			T-52		24.5	N 36° 33.748'	W 76° 13.681'	600 Ballahack Road (North Side)	
			T-544		227.6	N 36° 33.799'	W 76° 15.843'	Relay Road (North Side)	
			T-42cp		42.6	N 36° 33.399'	W 76° 12.496'	300 Ballahack Road (South Side); East of T-33	
			T-9401		45.7	N 36° 33.120'	W 76° 14.239'	Backwoods Road (North Side); North of NC Line	
			T-9402		22.6	N 36° 33.034'	W 76° 14.463'	Backwoods Road (North Side); West of T-9401, North of NC Line	
			T-1231		37.7	N 36° 34.819'	W 76° 16.072'	2150 Ballahack Road (South Side); Northwest Side of US Navy	
			T-81		37.5	N 36° 35.796'	W 76° 11.639'	700 Indian Creek Road (South Side); East of Raven Road	
O. Glenn Weatherly		Chesapeake	T-485		35.7	N36°34'33.79"	W76°11'11.43"	Between Indian Creek Rd and Gallbush Rd	New Permit
			T-934		23.3	N36°33'43.37"	W76°11'29.53"	Off of Neck Rd	New Permit
			T-121		34.5	N 36° 37.894'	W 76° 13.039'	Benefit Road (South Side); East of Eason & West of Battlefield	
			T-2400		28.3	N 36° 38.039'	W 76° 8.252'	Carolina Road (South Side) @ Bend in Road	
O. Glenn Weatherly		Chesapeake	T-1863		37.1	N36° 33' 06.05"	W76° 14' 09.86"	Ballahack Rd (north side)	

Hampton Roads Sanitation District Permitted Agricultural Land 2011

Operator	Old Operator	City	Site	New ID	Acres	Latitude	Longitude	Location	Comments
					1070.0				
Scott Weatherly		Chesapeake	T-1327		86.1	N 36° 41.495'	W 76° 7.933'	Fentress Airfield Road (West Side); Along Runway	
Scott Weatherly		Chesapeake	T-214		85.7	N 36° 41.843'	W 76° 7.191'	Fentress Airfield Road (North of "S" Turn)	
Scott Weatherly		Chesapeake	T-1359		114.3	N 36° 42.237'	W 76° 7.101'	Lockhead Avenue (North & South Sides)	
Scott Weatherly		Chesapeake	T-224		45.9	N 36° 42.245'	W 76° 6.446'	Lockhead Avenue (North & South Sides)	
					332.0				
Oceana Stables		Virginia Beach	T-43		149.9	N 36° 48.334'	W 76° 0.472'	900 block Oceana Blvd (West Side)	
					149.9				
Robert Kovacs Jr.		Virginia Beach	T-444		100.8	N 36° 33.207'	W 76° 4.725'	6621 Blackwater Road (West Side)	
Robert Kovacs Jr.		Virginia Beach	T-1428		62.7	N 36° 33.163'	W 76° 5.283'	West Gibbs Road, East Side Joins West Side of T-444	
					163.5				
Slabaugh Farms		Virginia Beach	T-4261		73.8	N 36° 37.265'	W 76° 5.856'	Head of River road (South Side); West of Blackwater Road	
Slabaugh Farms		Chesapeake	T-500		99.2	N 36° 37.012'	W 76° 9.686'	1200 block Sanderson Road (North Side); West of Cedarville Road	
			T-9434		146.5	N 36° 40.957'	W 76° 10.498'	Between 1200 Centerville Tpk & Whittamore Road, South of Murry	
			T-9436		113.2	N 36° 38.696'	W 76° 10.511'	Beaver Dam Road (North Side); West of Beaver Dam Court	
			T-9437		114.9	N 36° 39.108'	W 76° 8.608'	1500 block Long Ridge (West) & 1800 block Land of Primise (South)	
			T-366		51.8	N 36° 41.709'	W 76° 20.569'	2500 block Number Ten Lane (South Side)	
			T-2		58.6	N 36° 33.843'	W 76° 14.920'	Relay Road (South Side)	
			T-8		74.0	N 36° 33.441'	W 76° 14.766'	Relay Road (South Side)	
			T-14		24.6	N 36° 33.596'	W 76° 15.476'	Relay Road (South Side)	
			T-18		338.2	N 36° 33.165'	W 76° 15.635'	Relay Road (South Side)	
			T-1538		34.3	N 36° 34.389'	W 76° 15.119'	Relay Road (North Side)	
			T-9602		261.6	N 36° 39.863'	W 76° 9.205'	Fentress Airfield Road (West Side); @ Intersection Land of Promise	
			T-1542		71.3	N 36° 40.888'	W 76° 9.577'	900 block Whittamore Road (East Side	
			T-332Ch		170.0	N 36° 40.326'	W 76° 9.105'	Fentress Airfield Road (West Side); @ Intersection Long Ridge	
			T-11		7.3	N 36° 42.330'	W 76° 8.492'	Maxwell & Bedford Streets (Southeast Corner)	
			T-621		23.2	N 36° 42.175'	W 76° 8.938'	Bedford Street (South Side); East of T-9477 & West of T-644	
			T-638		18.3	N 36° 42.700'	W 76° 8.849'	Maxwell Street (West Side); Between Mt Pleasant Road & Bedford	
			T-644		26.3	N 36° 42.324'	W 76° 8.752'	Bedford Street (South Side); South of Corner of Bedford & Maxwell	
			T-656		125.0	N 36° 41.910'	W 76° 8.649'	Carter Road (West Side); Just North of Blue Ridge Road	
			T-9477		26.3	N 36° 42.165'	W 76° 9.070'	Bedford Street (South Side); West of T-621	
			T-294		102.7	N 36° 41.694'	W 76° 8.955'	Blue Ridge Road (North Side); West Side of Carter Road	
			T-669		24.2	N 36° 41.967'	W 76° 5.625'	Blackwater Road (Northeast Side); Just East of Fentress Airfield Rd	
			T-693		213.1	N 36° 41.338'	W 76° 6.145'	Blackwater Road (East & West Side); South of T-669	
Slabaugh Farms		Chesapeake	T-344		33.48	N36° 43' 3.77"	W76° 09' 3.76"	Mount Pleasant Rd (north side)	
			T-1296		5.9	N36°42'43.43"	W76°08'26.32"	1936 Mt. Pleasant Rd	New Permit
			T-226		138.13	N36° 39' 7.17"	W76° 8' 29.40"	Land of Promise Rd (north side)	
			T-9594		117.31	N36° 42' 4.12"	W76° 09' 3.76"	Bedford St (south side)	
					2493.2				
Theodore P. Fries		Chesapeake	T-297		80.1	N 36° 39.435'	W 76° 7.677'	Silvertown avenue (North); @ End of Road	
	James Dana Todd		T-687		131.2	N 36° 38.676'	W 76° 9.745'	1800 block Long Ridge Road (West Side)	Change in Operator
					211.3				
Samuel Lanier Jr.		Chesapeake	T-1311		179.8	N 36° 40.458'	W 76° 9.947'	Whittamore road (East & West Sides); North of Land of Promise	
					179.8				
Thomas Morris		Chesapeake	T-478		17.2	N36°36'35.09"	W76°07'54.25"	1840 Sanderson Road	New Permit
					17.2				

Hampton Roads Sanitation District Permitted Agricultural Land 2011

Operator	Old Operator	City	Site	New ID	Acres	Latitude	Longitude	Location	Comments
William Vaughn		Virginia Beach	T-4380		32.9	N36°38'29.20"	W76°01'37.87"	Vaughan Road	New Permit
			T-4341		13.6	N36°40'29.20"	W76°01'37.87"	Vaughan Road	New Permit
			T-4467		15.6	N36°40'29.20"	W76°01'37.87"	Vaughan Road	New Permit
			T-4488		73.5	N36°40'29.20"	W76°00'52.38"	Princess Anne Rd. and Vaughan Rd.	New Permit
					135.6				
Total Acres					20007.0				

ATTACHMENT 5

TABLE II - EFFLUENT MONITORING/LIMITATIONS

TABLE II - MUNICIPAL EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 001 DESIGN FLOW: 54 MGD

Outfall Description: Municipal Discharge

SIC CODE: 4952

(X) Final Limits ( ) Interim Limits Effective Dates - From: Issuance To: Expiration

PARAMETER & UNITS	BASIS FOR LIMITS	DESIGN FLOW MULTIPLIER	EFFLUENT LIMITATIONS				MONITORING REQUIREMENTS	
			MONTHLY AVERAGE	WEEKLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD) [a]	3		NL	NA	NA	NL	Cont.	TI & RE*
PH (S.U.)	1		NA	NA	6.0	9.0	1/Day	Grab
BOD5 (mg/l) [c]	1		30	45	NA	NA	1/Day	24 HC
BOD5 (kg/d) [c]	1	54	6132	9198	NA	NA	1/Day	24 HC
TSS (mg/l) [c]	1		30	45	NA	NA	1/Day	24 HC
TSS (kg/d) [c]	1	54	6132	9198	NA	NA	1/Day	24 HC
TRC (mg/l) [b] [c]	2		2.5	4.0	NA	NA	1/ 2 Hours	Grab
Fecal Coliform (n/cml) [d]	2		200	NA	NA	NA	1/Day (Between 10 am & 4 pm)	Grab
Enterococci (n/cml) [e]	2		35	NA	NA	NA	2/Month (Between 10 am & 4 pm)	Grab

*Totalizing, Indicating & Recording Equipment

NA = Not Applicable. NL = No limitation, however, reporting is required.

Upon issuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

[a] The design flow of this treatment facility is 54 MGD. See Part I.C.5 for additional flow requirements.
[b] See Part I.B. for additional chlorine monitoring instructions.
[c] See Parts I.C.6 and I.C.7 for quantification levels and reporting requirements, respectively.
[d] Fecal Coliform monthly average is calculated as a geometric mean.
[e] Enterococci monthly average is calculated as a geometric mean. Samples must be taken at least 7 days apart.

2. There shall be no discharge of floating solids or visible foam in other than trace amounts.
3. At least 85% removal for BOD and TSS must be attained for this effluent.

The basis for the limitations codes are:
1. Technology (e.g., Federal Effluent Guidelines)
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment

TABLE II - STORM WATER EFFLUENT LIMITATIONS/MONITORING

OUTFALLS #002 - 009, 011, 012, 014, 016 and 017
Outfall Description: Stormwater Not Associated With Regulated Industrial Activity
SIC CODE: 4952

THESE OUTFALLS SHALL CONTAIN STORM WATER RUNOFF ASSOCIATED WITH A REGULATED INDUSTRIAL ACTIVITY WHERE NO MONITORING IS REQUIRED. THERE SHALL BE NO DISCHARGE OF PROCESS WASTEWATER FROM THESE OUTFALLS.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

TABLE II - MUNICIPAL **SLUDGE** LIMITATIONS/MONITORING

OUTFALL # SP1 DESIGN FLOW: 54 MGD
Outfall Description: Sludge from a Municipal Discharge
SIC CODE: 4952

a. Annual Sludge Production Data
Report annual total amount of sludge produced, in dry metric tons, including units and annual amount of sludge used or disposed in various methods (if applicable).

b. Chemical Pollutant Limitations

(X) Final Limits Effective Dates - From: Permit Issuance To: Expiration

PARAMETER & UNITS	MONITORING REQUIREMENTS			
	MONTHLY AVERAGE MG/KG*	CEILING CONCENTRATION MAXIMUM MG/KG*	FREQUENCY	SAMPLE TYPE
Solids Total, Sludge As Percent (%)	NL	NA	1/2 Months	Composite
Total Kjeldahl Nitrogen (mg/kg)	NA	NL	1/2 Months	Composite
Ammonia Nitrogen (mg/kg)	NA	NL	1/2 Months	Composite
Nitrate Nitrogen (mg/kg)	NA	NL	1/2 Months	Composite
Total Phosphorus (mg/kg)	NA	NL	1/2 Months	Composite
Total Potassium (mg/kg)	NA	NL	1/2 Months	Composite
Alkalinity as $CaCO_3$ (%)	NA	NL**	1/2 Months	Composite
Arsenic (mg/kg)	41	75	1/2 Months	Composite
Cadmium (mg/kg)	39	85	1/2 Months	Composite
Copper (mg/kg)	1,500	4,300	1/2 Months	Composite
Lead (mg/kg)	300	840	1/2 Months	Composite
Mercury (mg/kg)	17	57	1/2 Months	Composite
Molybdenum (mg/kg)	NA	75	1/2 Months	Composite
Nickel (mg/kg)	420	420	1/2 Months	Composite
Selenium (mg/kg)	100	100	1/2 Months	Composite
Zinc (mg/kg)	2800	7,500	1/2 Months	Composite
pH (Std Units @ 25° C)	NA	NL	1/2 Months	Composite
Plant Available Nitrogen (Lbs/DT)	NA	NL	1/2 Months	Composite

NL = No limitation, monitoring required
NA = Not Applicable
* = Dry weight basis, unless otherwise stated.

** = Lime treated sludge (10% or more $CaCO_3$ by dry weight) should be analyzed for percent Calcium Carbonate Equivalence (CCE).

c. Pathogen Reduction Limitations (Identify the chosen class/alternative(s) in accordance with the approved SMP (may be more than one), specify the applicable monitoring/operation parameters.)

For example: Class B, Alternative 1, fecal coliform less than either 2,000,000 MPN/g or 2,000,000 CFU/g; or Class B, Alternative 2, anaerobic digestion - Sewage sludge shall be treated in the absence of air for a specific mean cell residence time at a specific temperature. Values for the mean cell residence time and temperature shall be between 15 days at 35 to 55 degrees Celsius and 60 days at 200 degrees Celsius.

d. Vector Attraction Reduction Limitations: The permittee shall comply with one of the applicable vector attraction reduction alternatives specified in 9 VAC 25-31-720 B.

e. All samples shall be collected and analyzed in accordance with the approved O & M Manual.

TABLE II - SOILS LIMITATIONS/MONITORING

Soils
Site Description: All land application sites prior to sludge application

(X) Final Limits Effective Dates - From: Permit Issuance To: Expiration

PARAMETER & UNITS	SOILS MONITORING		MONITORING REQUIREMENTS	
	LIMITATIONS	UNITS	FREQUENCY	SAMPLE TYPE
Soil pH	NL	S.U.	1/Application	Composite
Cation Exchange Capacity	NL	meq/100g	1/Application	Composite
Available Phosphorus	NL	mg/kg	1/Application	Composite
Exchangeable Potassium	NL	mg/kg	1/Application	Composite
Exchangeable Magnesium	NL	mg/kg	1/Application	Composite

NL = NO LIMIT, MONITORING REQUIREMENT ONLY

a. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: All land application sties before sludge is reapplied.

b. Soil composite samples shall be representative of the soil types delineated by the SCS Soil Survey (or the equivalent). Samples shall be taken at 0-6 inches soil depth for each land application site. Samples shall be performed as outlined in the approved O&M manual.

C. Unless otherwise stated, all parameters are reported on a dry weight basis.

2. Attachment D has been provided for reporting soil monitoring.

TABLE II - MUNICIPAL MINOR EFFLUENT LIMITATIONS
Attachment 5 continued

Final Chlorine Limitations Effective Dates - From: Permit Issuance To: Permit Expiration

TRC **	AFTER CL2 CONTACT TANK (Dechlor. Required)			AFTER DECHLORINATION		AFTER CL2 CONTACT TANK (Dechlor. Not Required)				
	MIN.	EXC.	INST. MIN.	WKLY AVG.	INST. MAX.	PERMIT RANGE	EXC.	REPORT-ING RANGE	EXC.	TECH. MAX.
a) Non-Detect. Dechlor. Required	---	---	---	---	---	NA	NA	NA	NA	NA
b) Detect. Dechlor. Required	**1.0**	**36**	**0.20 mg/l***	**4.0 mg/l**	---	NA	NA	NA	NA	NA
c) No Dechlor.	NA	NA	NA	NA	NA	---	---	---	---	---

* Reporting is required when the computed chlorine does falls below <0.20 mg/l or 3 or more consecutive readings or <0.10 for any reading.

** --Chlorine mass balance Cw (W for Tidal systems): check one

____a) $C_w < 0.1$ mg/l [dechlor. required, non-detectable format]

___b) 0.1 mg/l $\leq C_w <$ 2.0 mg/l (2.5 mg/l for PWS, Shellfish waters) [dechlor. required, detectable format]

_X_ c) $C_w > 2.0$ mg/l (2.5 mg/l for PWS, Shellfish waters) [dechlor. not required, include a restrictive technology max. value]

The design flow of this treatment facility is 54 MGD.

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

See Part I.B. for additional TRC limitations.

ATTACHMENT 6

EFFLUENT LIMITATIONS/MONITORING RATIONALE/SUITABLE DATA/ ANTIDEGRADATION/ANTIBACKSLIDING

HRSD Atlantic STP
Rationale For Parameters, Limitations, And Sampling Requirements
Outfall 001

Flow:	No limit, monitoring is required with continuous, totalizing, indicating or recording equipment. This based on the VPDES Permit Manual, and is standard for sanitary wastewater plants with discharges greater than 2 MGD. The design flow of 54 MGD is the baseline for the 95% design flow capacity notification.
pH:	Minimum limit of 6.0 and maximum of 9.0 S.U. These limits are based on Federal Effluent Guidelines (40 CFR 133.102) and Water Quality Standards in 9 VAC 25-260-50, which limits pH to the range above for coastal waters of the State. Monitoring is a daily grab sample and is standard for sanitary WW plants with discharges greater than 2 MGD.
Biochemical Oxygen Demand:	Monthly average of 30 mg/l and 6132 kg/day and a weekly average of 45 mg/l and 9198 kg/day. This is based on Federal Effluent Guidelines (40 CFR 133.102) which sets the limits for secondary WW plants. Loading limits are in whole numbers based upon the latest DEQ significant figures guidance (06-2016). Monitoring required is a 24 hour composite, 1/day. The monitoring frequency is based upon the VPDES manual. A special reopener condition has been created to allow for permit modification to decrease frequency once 3 years of the upgraded plant data is obtained. The plant upgraded to 54 MGD in early 2010.
Total Suspended Solids:	Monthly average of 30 mg/l and 6132 kg/day and a weekly average of 45 mg/l and 9198 kg/day. This is based on Federal Effluent Guidelines (40 CFR 133.102) which sets the limits for secondary WW plants. Loading limits are in whole numbers based upon the latest DEQ significant figures guidance (06-2016). Monitoring required is a 24 hour composite, 1/day. The monitoring frequency is based upon the VPDES manual. A special reopener condition has been created to allow for permit modification to decrease frequency once 3 years of the upgraded plant data is obtained. The plant upgraded to 54 MGD in early 2010.
Total Residual Contact Chlorine:	Minimum limit after contact time is 1.0 mg/l with 36 exceptions. The limit is below the standard of 1.5 mg/l. The 1.0 mg/l was agreed upon in previous permit terms between DEQ, VDH and HRSD to allow operational flexibility. This was allowed since the receiving stream is the Atlantic Ocean. Monitoring required is a grab sample once every two hours. This is based on the VPDES Permit Manual and is standard for municipal discharges of > 2.0 MGD. A special condition requires reporting if the chlorine concentration falls below 0.2 mg/l **and** chlorination dosage falls below 1.0 mg/l This requirement was changed from an "or" to an "and" during permit negotiations with Clyde Gantt (DEQ permits).

The change to an "and" was based upon CKG applying BPJ because of HRSD reporting. However, it was noticed that comments were received from VDH on a draft HRSD permit by CKG and the comments were not properly addressed. On 6/21/07 I emailed Dan Horne with VDH to find out if his original concerns still existed. He emailed back on 7/22/07 stating that he would suggest that the wording not be changed to "AND". He also wanted DSS notified. On 6/26/07 I emailed Keith Skiles with DSS who commented back on 6/29/07. (All emails are attached) On 6/29/07 I sent an email to both DSS, VDH, and DEQ-Wastewater Engineering with newly proposed language that would require reporting when 3 or more consecutive TRC readings were below 0.6 mg/l or the TRC is less than 0.1 mg/l.(This language was for the Nansemond STP). The consecutive concept was recommended by HRSD in a phone call with Sharon Nicklas on 6/25/07 and Kim Butler with DEQ Wastewater Engineering requested the reporting when <0.1 mg/l. I included a date to respond back by in the email to VDH of 7/2/07. On 7/23 and 7/24/07, DSS and VDH responded that they have no issue with the condition. On 8/10/07, I sent both VDH and DSS an email stating that the condition would be carried forward in all other reissued HRSD permits.
Because the Atlantic permit was written prior to 8/10/07, that language did not make it to the permit, therefore it is being added at this reissuance. The permit language shall read " The permittee shall notify the DEQ in the event that the TRC sample collected is less than 0.20 mg/l for 3 or more consecutive readings or the TRC sample is <0.10 mg/l for any reading."

The significant figures have been changed for the special condition to be in compliance with significant figures guidance 06-2016.

Final Total Residual Chlorine:

A weekly average of 4.0 mg/l. A monthly average of 2.5 mg/l. These limits were agreed upon by DEQ, VDH and HRSD during pervious permit term negotiations.
Monitoring is required once/2 hours (12/day) by grab sample. Because the chlorine contact (TRC) and final chlorine residual is sampled at the same location, the more restrictive sampling frequency is applied to both parameters.

Fecal Coliform:

Monthly average of 200 n/cml. This is based on Water Quality Standards (9 VAC 25-260-160) and is believed protective of instream standards. Monitoring required is a grab sample once/day. A special reopener condition has been created to allow for permit modification to decrease frequency once 3 years of the upgraded plant data is obtained. The plant upgraded to 54 MGD in early 2010.

Fecal coliform samples are to be taken during the 10AM to 4PM time frame.

Enterococci:

This permit previously monitored the disinfection of treated wastewater through minimum TRC limits. The addition of an enterococci effluent limitation is intended to meet

bacteriological standards and comply with EPA requirements. The last Atlantic permit reissuance was completed prior to Enterococci monitoring becoming an issue that EPA addressed in late 2007/early 2008.

A monthly average limit of 35 n/cml is included per water quality standards. Sampling is required 2/Month to be calculated as a geometric mean. Samples must be taken at least 7 days apart. This is consistent with the other HRSD facilities in TRO.

Sludge and Soils Monitoring

Sludge monitoring parameters, monthly average concentrations and ceiling concentration maximums are based on requirements taken from the VPDES permit manual for PC (pollutant concentration) sludge. This is based upon Table 3, 9 VAC 25-31-540. The frequency of monitoring 1/ 2 months is based upon the amount of sludge over a year period applied and is taken from the VPDES manual.

Soils monitoring parameters and monitoring frequency are based upon the application rate of 1/3 years per application site per the VPDES permit manual.

Additional Information

1. Dechlorination is not required at this facility due to the extensive pipe length, chlorine demand in the pipe, and the receiving stream salt water demand (Atlantic Ocean).

2. Cyanide effluent data was analyzed in the DEQ model of STATS and no limit is needed based upon the approved mix of 109:1 for acute and 741:1 for chronic. This mix was submitted in January 2004.

3. Ammonia was analyzed using STATS by HRSD. Based upon the approved mixes a limit for ammonia is not needed.

4. There have been some changes to stormwater outfalls due to construction at the facility during plant upgrade. Outfalls 010, 013, and 015 were removed during plant expansion. Outfall 017 was added. HRSD believes that all stormwater runoff from the plant is substantially identical, therefore, data for only 1 outfall was submitted on form 2F. HRSD has also met the requirements for "no exposure" for the stormwater outfalls associated with industrial activity. No monitoring of stormwater is required.

5. During this reissuance, the facility has requested the addition of 11 sites for Biosolids application. The list of proposed sites is attached to this section. The site map books for the 11 sites are filed in DEQ-TRO and are available. Letters to all adjacent landowners will be mailed at the time of public notice. A list of the adjacent landowners obtained from the City of Virginia Beach and Chesapeake is attached to this section. This notification requirement is found in Part IX of the VPA permit regulation 9 VAC 25-32-10 for Biosolids. Based on a modification to this permit to add 17 additional sites in 2011, it is expected that public comment will be received.

Permit No	Outfall No	Parameter Description	QTYAVG	QTYMAX	CONCMIN	CONCAVG	CONCMAX	Start Date	End Date
VA0081248	001	FLOW	31.43	38.24				1-Jan-07	31-Jan-07
VA0081248	001	PH			6.6		7.0	1-Jan-07	31-Jan-07
VA0081248	001	BOD5	1057	1435		9	12	1-Jan-07	31-Jan-07
VA0081248	001	TSS	1118	1280		9	10	1-Jan-07	31-Jan-07
VA0081248	001	CL2, TOTAL				1.3	1.3	1-Jan-07	31-Jan-07
VA0081248	001	COLIFORM, FECAL				1		1-Jan-07	31-Jan-07
VA0081248	001	CL2, TOTAL CONTACT			0.6			1-Jan-07	31-Jan-07
VA0081248	001	FLOW	30.47	34.49				1-Feb-07	28-Feb-07
VA0081248	001	PH			6.6		7.8	1-Feb-07	28-Feb-07
VA0081248	001	BOD5	867	770		7	7	1-Feb-07	28-Feb-07
VA0081248	001	TSS	1222	992		10	8.6	1-Feb-07	28-Feb-07
VA0081248	001	CL2, TOTAL				1.2	1.3	1-Feb-07	28-Feb-07
VA0081248	001	COLIFORM, FECAL				1		1-Feb-07	28-Feb-07
VA0081248	001	CL2, TOTAL CONTACT			0.4			1-Feb-07	28-Feb-07
VA0081248	001	FLOW	28.72	33.39				1-Mar-07	31-Mar-07
VA0081248	001	PH			6.6		7.0	1-Mar-07	31-Mar-07
VA0081248	001	BOD5	768	853		7	8	1-Mar-07	31-Mar-07
VA0081248	001	TSS	826	1008		7.6	9.0	1-Mar-07	31-Mar-07
VA0081248	001	CL2, TOTAL				1.2	1.2	1-Mar-07	31-Mar-07
VA0081248	001	COLIFORM, FECAL				1		1-Mar-07	31-Mar-07
VA0081248	001	CL2, TOTAL CONTACT			0.7			1-Mar-07	31-Mar-07
VA0081248	001	FLOW	26.81	33.67				1-Apr-07	30-Apr-07
VA0081248	001	PH			6.6		6.9	1-Apr-07	30-Apr-07
VA0081248	001	BOD5	936	1091		9	10	1-Apr-07	30-Apr-07
VA0081248	001	TSS	828	1187		8.0	11	1-Apr-07	30-Apr-07
VA0081248	001	CL2, TOTAL				1.2	1.2	1-Apr-07	30-Apr-07
VA0081248	001	COLIFORM, FECAL				1		1-Apr-07	30-Apr-07
VA0081248	001	CL2, TOTAL CONTACT			0.8			1-Apr-07	30-Apr-07
VA0081248	001	FLOW	25.85	30.10				1-May-07	31-May-07
VA0081248	001	PH			6.5		6.9	1-May-07	31-May-07
VA0081248	001	BOD5	1263	1492		13	15	1-May-07	31-May-07
VA0081248	001	TSS	757	863		7.8	9.0	1-May-07	31-May-07
VA0081248	001	CL2, TOTAL				1.2	1.2	1-May-07	31-May-07
VA0081248	001	COLIFORM, FECAL				1		1-May-07	31-May-07
VA0081248	001	CL2, TOTAL CONTACT			0.8			1-May-07	31-May-07
VA0081248	001	FLOW	26.15	30.65				1-Jun-07	30-Jun-07
VA0081248	001	PH			6.4		7.0	1-Jun-07	30-Jun-07
VA0081248	001	BOD5	1035	1297		10	12	1-Jun-07	30-Jun-07
VA0081248	001	TSS	805	880		8.1	9.0	1-Jun-07	30-Jun-07
VA0081248	001	CL2, TOTAL				1.2	1.3	1-Jun-07	30-Jun-07
VA0081248	001	COLIFORM, FECAL				1		1-Jun-07	30-Jun-07
VA0081248	001	CL2, TOTAL CONTACT			0.5			1-Jun-07	30-Jun-07
VA0081248	001	FLOW	27.57	29.37				1-Jul-07	31-Jul-07
VA0081248	001	PH			6.4		7.0	1-Jul-07	31-Jul-07
VA0081248	001	BOD5	895	906		9	9	1-Jul-07	31-Jul-07
VA0081248	001	TSS	1205	1285		12	12	1-Jul-07	31-Jul-07
VA0081248	001	CL2, TOTAL				1.2	1.3	1-Jul-07	31-Jul-07
VA0081248	001	COLIFORM, FECAL				3		1-Jul-07	31-Jul-07
VA0081248	001	CL2, TOTAL CONTACT			0.5			1-Jul-07	31-Jul-07
VA0081248	001	FLOW	27.78	29.62				1-Aug-07	31-Aug-07
VA0081248	001	PH			6.4		6.9	1-Aug-07	31-Aug-07
VA0081248	001	BOD5	858	979		8	9	1-Aug-07	31-Aug-07
VA0081248	001	TSS	1218	1384		12	13	1-Aug-07	31-Aug-07
VA0081248	001	CL2, TOTAL				1.2	1.3	1-Aug-07	31-Aug-07
VA0081248	001	COLIFORM, FECAL				1		1-Aug-07	31-Aug-07
VA0081248	001	CL2, TOTAL CONTACT			0.6			1-Aug-07	31-Aug-07
VA0081248	001	FLOW	26.68	29.01				1-Sep-07	30-Sep-07

Permit No	Outfall No	Parameter Description	QTYAVG	QTYMAX	CONCMIN	CONCAVG	CONCMAX	Start Date	End Date
VA0081248	001	PH			6.5		7.0	1-Sep-07	30-Sep-07
VA0081248	001	BOD5	1038	1159		10	11	1-Sep-07	30-Sep-07
VA0081248	001	TSS	1221	1502		12	15	1-Sep-07	30-Sep-07
VA0081248	001	CL2, TOTAL				1.2	1.2	1-Sep-07	30-Sep-07
VA0081248	001	COLIFORM, FECAL				1		1-Sep-07	30-Sep-07
VA0081248	001	CL2, TOTAL CONTACT			0.5			1-Sep-07	30-Sep-07
VA0081248	001	FLOW	25.33	27.87				1-Oct-07	31-Oct-07
VA0081248	001	PH			6.5		6.9	1-Oct-07	31-Oct-07
VA0081248	001	BOD5	762	1012		8	10	1-Oct-07	31-Oct-07
VA0081248	001	TSS	765	877		8	9	1-Oct-07	31-Oct-07
VA0081248	001	CL2, TOTAL				1.2	1.2	1-Oct-07	31-Oct-07
VA0081248	001	COLIFORM, FECAL				1		1-Oct-07	31-Oct-07
VA0081248	001	CL2, TOTAL CONTACT			0.6			1-Oct-07	31-Oct-07
VA0081248	001	FLOW	24.87	26.65				1-Nov-07	30-Nov-07
VA0081248	001	PH			6.5		7.0	1-Nov-07	30-Nov-07
VA0081248	001	BOD5	670	677		7	7	1-Nov-07	30-Nov-07
VA0081248	001	TSS	791	957		8	10	1-Nov-07	30-Nov-07
VA0081248	001	CL2, TOTAL				1.2	1.2	1-Nov-07	30-Nov-07
VA0081248	001	COLIFORM, FECAL				1		1-Nov-07	30-Nov-07
VA0081248	001	CL2, TOTAL CONTACT			0.8			1-Nov-07	30-Nov-07
VA0081248	001	FLOW	25.42	32.38				1-Dec-07	31-Dec-07
VA0081248	001	PH			6.5		7.0	1-Dec-07	31-Dec-07
VA0081248	001	BOD5	737	826		8	8	1-Dec-07	31-Dec-07
VA0081248	001	TSS	732	913		7.5	9.1	1-Dec-07	31-Dec-07
VA0081248	001	CL2, TOTAL				1.2	1.2	1-Dec-07	31-Dec-07
VA0081248	001	COLIFORM, FECAL				1		1-Dec-07	31-Dec-07
VA0081248	001	CL2, TOTAL CONTACT			0.6			1-Dec-07	31-Dec-07
VA0081248	001	FLOW	24.98	26.90				1-Jan-08	31-Jan-08
VA0081248	001	PH			6.6		7.1	1-Jan-08	31-Jan-08
VA0081248	001	BOD5	648	669		7	7	1-Jan-08	31-Jan-08
VA0081248	001	TSS	675	696		7.2	7.0	1-Jan-08	31-Jan-08
VA0081248	001	CL2, TOTAL				1.2	1.2	1-Jan-08	31-Jan-08
VA0081248	001	COLIFORM, FECAL				1		1-Jan-08	31-Jan-08
VA0081248	001	CL2, TOTAL CONTACT			0.48			1-Jan-08	31-Jan-08
VA0081248	001	FLOW	26.19	35.79				1-Feb-08	29-Feb-08
VA0081248	001	PH			6.6		7.0	1-Feb-08	29-Feb-08
VA0081248	001	BOD5	998	1502		10	13	1-Feb-08	29-Feb-08
VA0081248	001	TSS	922	1204		9.1	11	1-Feb-08	29-Feb-08
VA0081248	001	CL2, TOTAL				1.2	1.2	1-Feb-08	29-Feb-08
VA0081248	001	COLIFORM, FECAL				1		1-Feb-08	29-Feb-08
VA0081248	001	CL2, TOTAL CONTACT			0.8			1-Feb-08	29-Feb-08
VA0081248	001	FLOW	26.55	29.88				1-Mar-08	31-Mar-08
VA0081248	001	PH			6.6		7.1	1-Mar-08	31-Mar-08
VA0081248	001	BOD5	1004	1179		10	12	1-Mar-08	31-Mar-08
VA0081248	001	TSS	801	927		8.0	9.0	1-Mar-08	31-Mar-08
VA0081248	001	CL2, TOTAL				1.2	1.2	1-Mar-08	31-Mar-08
VA0081248	001	COLIFORM, FECAL				1		1-Mar-08	31-Mar-08
VA0081248	001	CL2, TOTAL CONTACT			0.8			1-Mar-08	31-Mar-08
VA0081248	001	FLOW	28.33	36.70				1-Apr-08	30-Apr-08
VA0081248	001	PH			6.5		7.1	1-Apr-08	30-Apr-08
VA0081248	001	BOD5	1028	1308		9	11	1-Apr-08	30-Apr-08
VA0081248	001	TSS	943	1198		8.6	9.9	1-Apr-08	30-Apr-08
VA0081248	001	CL2, TOTAL				1.2	1.2	1-Apr-08	30-Apr-08
VA0081248	001	COLIFORM, FECAL				1		1-Apr-08	30-Apr-08
VA0081248	001	CL2, TOTAL CONTACT			0.27			1-Apr-08	30-Apr-08
VA0081248	001	FLOW	26.70	30.01				1-May-08	31-May-08
VA0081248	001	PH			6.6		7.0	1-May-08	31-May-08

Permit No	Outfall No	Parameter Description	QTYAVG	QTYMAX	CONCMIN	CONCAVG	CONCMAX	Start Date	End Date
VA0081248	001	BOD5	836	911		8	9	1-May-08	31-May-08
VA0081248	001	TSS	887	963		8.7	9.7	1-May-08	31-May-08
VA0081248	001	CL2, TOTAL				1.4	1.6	1-May-08	31-May-08
VA0081248	001	COLIFORM, FECAL				1		1-May-08	31-May-08
VA0081248	001	CL2, TOTAL CONTACT			0.79			1-May-08	31-May-08
VA0081248	001	FLOW	25.52	27.41				1-Jun-08	30-Jun-08
VA0081248	001	PH			6.5		7.0	1-Jun-08	30-Jun-08
VA0081248	001	BOD5	885	1220		9	13	1-Jun-08	30-Jun-08
VA0081248	001	TSS	723	793		7.5	8.2	1-Jun-08	30-Jun-08
VA0081248	001	CL2, TOTAL				1.5	1.6	1-Jun-08	30-Jun-08
VA0081248	001	COLIFORM, FECAL				1		1-Jun-08	30-Jun-08
VA0081248	001	CL2, TOTAL CONTACT			0.91			1-Jun-08	30-Jun-08
VA0081248	001	FLOW	28.81	34.56				1-Jul-08	31-Jul-08
VA0081248	001	PH			6.5		6.9	1-Jul-08	31-Jul-08
VA0081248	001	BOD5	1167	1327		11	12	1-Jul-08	31-Jul-08
VA0081248	001	TSS	1314	1650		12	15	1-Jul-08	31-Jul-08
VA0081248	001	CL2, TOTAL				1.4	1.5	1-Jul-08	31-Jul-08
VA0081248	001	COLIFORM, FECAL				1		1-Jul-08	31-Jul-08
VA0081248	001	CL2, TOTAL CONTACT			0.72			1-Jul-08	31-Jul-08
VA0081248	001	FLOW	27.50	30.09				1-Aug-08	31-Aug-08
VA0081248	001	PH			6.6		7.1	1-Aug-08	31-Aug-08
VA0081248	001	BOD5	1114	1309		11	13	1-Aug-08	31-Aug-08
VA0081248	001	TSS	1598	2091		15	20	1-Aug-08	31-Aug-08
VA0081248	001	CL2, TOTAL				1.4	1.5	1-Aug-08	31-Aug-08
VA0081248	001	COLIFORM, FECAL				2		1-Aug-08	31-Aug-08
VA0081248	001	CL2, TOTAL CONTACT			0.15			1-Aug-08	31-Aug-08
VA0081248	001	FLOW	27.05	36.08				1-Sep-08	30-Sep-08
VA0081248	001	PH			6.6		7.0	1-Sep-08	30-Sep-08
VA0081248	001	BOD5	740	839		7	8	1-Sep-08	30-Sep-08
VA0081248	001	TSS	929	1112		9.0	11	1-Sep-08	30-Sep-08
VA0081248	001	CL2, TOTAL				1.5	1.5	1-Sep-08	30-Sep-08
VA0081248	001	COLIFORM, FECAL				1		1-Sep-08	30-Sep-08
VA0081248	001	CL2, TOTAL CONTACT			0.80			1-Sep-08	30-Sep-08
VA0081248	001	FLOW	25.74	28.47				1-Oct-08	31-Oct-08
VA0081248	001	PH			6.5		6.9	1-Oct-08	31-Oct-08
VA0081248	001	BOD5	653	726		7	8	1-Oct-08	31-Oct-08
VA0081248	001	TSS	801	936		8.2	9.6	1-Oct-08	31-Oct-08
VA0081248	001	CL2, TOTAL				1.4	1.4	1-Oct-08	31-Oct-08
VA0081248	001	COLIFORM, FECAL				1		1-Oct-08	31-Oct-08
VA0081248	001	CL2, TOTAL CONTACT			0.22			1-Oct-08	31-Oct-08
VA0081248	001	FLOW	27.38	34.21				1-Nov-08	30-Nov-08
VA0081248	001	PH			6.5		7.0	1-Nov-08	30-Nov-08
VA0081248	001	BOD5	686	728		7	7	1-Nov-08	30-Nov-08
VA0081248	001	TSS	824	853		7.9	8.3	1-Nov-08	30-Nov-08
VA0081248	001	CL2, TOTAL				1.3	1.4	1-Nov-08	30-Nov-08
VA0081248	001	COLIFORM, FECAL				1		1-Nov-08	30-Nov-08
VA0081248	001	CL2, TOTAL CONTACT			0.67			1-Nov-08	30-Nov-08
VA0081248	001	FLOW	28.26	40.34				1-Dec-08	31-Dec-08
VA0081248	001	PH			6.4		7.0	1-Dec-08	31-Dec-08
VA0081248	001	BOD5	812	1017		7	9	1-Dec-08	31-Dec-08
VA0081248	001	TSS	978	1218		9.0	10	1-Dec-08	31-Dec-08
VA0081248	001	CL2, TOTAL				1.3	1.3	1-Dec-08	31-Dec-08
VA0081248	001	COLIFORM, FECAL				1		1-Dec-08	31-Dec-08
VA0081248	001	CL2, TOTAL CONTACT			0.76			1-Dec-08	31-Dec-08
VA0081248	001	FLOW	27.45	29.33				1-Jan-09	31-Jan-09
VA0081248	001	PH			6.4		6.9	1-Jan-09	31-Jan-09
VA0081248	001	BOD5	780	890		7	8	1-Jan-09	31-Jan-09

Permit No	Outfall No	Parameter Description	QTYAVG	QTYMAX	CONCMIN	CONCAVG	CONCMAX	Start Date	End Date
VA0081248	001	TSS	934	1065		8.9	10	1-Jan-09	31-Jan-09
VA0081248	001	CL2, TOTAL				1.2	1.2	1-Jan-09	31-Jan-09
VA0081248	001	COLIFORM, FECAL				1		1-Jan-09	31-Jan-09
VA0081248	001	CL2, TOTAL CONTACT			0.70			1-Jan-09	31-Jan-09
VA0081248	001	FLOW	26.30	28.49				1-Feb-09	28-Feb-09
VA0081248	001	PH			6.5		6.9	1-Feb-09	28-Feb-09
VA0081248	001	BOD5	994	1357		10	13	1-Feb-09	28-Feb-09
VA0081248	001	TSS	1054	1285		11	13	1-Feb-09	28-Feb-09
VA0081248	001	CL2, TOTAL				1.2	1.2	1-Feb-09	28-Feb-09
VA0081248	001	COLIFORM, FECAL				1		1-Feb-09	28-Feb-09
VA0081248	001	CL2, TOTAL CONTACT			0.82			1-Feb-09	28-Feb-09
VA0081248	001	FLOW	26.62	34.84				1-Mar-09	31-Mar-09
VA0081248	001	PH			6.4		6.9	1-Mar-09	31-Mar-09
VA0081248	001	BOD5	850	980		8	9	1-Mar-09	31-Mar-09
VA0081248	001	TSS	822	1058		8.1	9.7	1-Mar-09	31-Mar-09
VA0081248	001	CL2, TOTAL				1.2	1.3	1-Mar-09	31-Mar-09
VA0081248	001	COLIFORM, FECAL				1		1-Mar-09	31-Mar-09
VA0081248	001	CL2, TOTAL CONTACT			0.81			1-Mar-09	31-Mar-09
VA0081248	001	FLOW	24.43	26.27				1-Apr-09	30-Apr-09
VA0081248	001	PH			6.5		7.1	1-Apr-09	30-Apr-09
VA0081248	001	BOD5	831	971		9	11	1-Apr-09	30-Apr-09
VA0081248	001	TSS	777	1012		8.4	11	1-Apr-09	30-Apr-09
VA0081248	001	CL2, TOTAL				1.2	1.3	1-Apr-09	30-Apr-09
VA0081248	001	COLIFORM, FECAL				1		1-Apr-09	30-Apr-09
VA0081248	001	CL2, TOTAL CONTACT			0.57			1-Apr-09	30-Apr-09
VA0081248	001	FLOW	24.64	29.33				1-May-09	31-May-09
VA0081248	001	PH			6.5		7.0	1-May-09	31-May-09
VA0081248	001	BOD5	628	671		7	7	1-May-09	31-May-09
VA0081248	001	TSS	870	1038		9.3	11	1-May-09	31-May-09
VA0081248	001	CL2, TOTAL				1.3	1.3	1-May-09	31-May-09
VA0081248	001	COLIFORM, FECAL				1		1-May-09	31-May-09
VA0081248	001	CL2, TOTAL CONTACT			0.51			1-May-09	31-May-09
VA0081248	001	FLOW	24.48	31.96				1-Jun-09	30-Jun-09
VA0081248	001	PH			6.4		6.9	1-Jun-09	30-Jun-09
VA0081248	001	BOD5	651	751		7	8	1-Jun-09	30-Jun-09
VA0081248	001	TSS	907	1063		10	11	1-Jun-09	30-Jun-09
VA0081248	001	CL2, TOTAL				1.6	1.9	1-Jun-09	30-Jun-09
VA0081248	001	COLIFORM, FECAL				1		1-Jun-09	30-Jun-09
VA0081248	001	CL2, TOTAL CONTACT			0.42			1-Jun-09	30-Jun-09
VA0081248	001	FLOW	23.64	25.50				1-Jul-09	31-Jul-09
VA0081248	001	PH			6.1		7.0	1-Jul-09	31-Jul-09
VA0081248	001	BOD5	561	730		6	8	1-Jul-09	31-Jul-09
VA0081248	001	TSS	1050	1337		12	15	1-Jul-09	31-Jul-09
VA0081248	001	CL2, TOTAL				1.4	1.4	1-Jul-09	31-Jul-09
VA0081248	001	COLIFORM, FECAL				1		1-Jul-09	31-Jul-09
VA0081248	001	CL2, TOTAL CONTACT			0.26			1-Jul-09	31-Jul-09
VA0081248	001	FLOW	24.01	26.17				1-Aug-09	31-Aug-09
VA0081248	001	PH			6.2		6.8	1-Aug-09	31-Aug-09
VA0081248	001	BOD5	543	665		6	7	1-Aug-09	31-Aug-09
VA0081248	001	TSS	898	1037		9.9	11	1-Aug-09	31-Aug-09
VA0081248	001	CL2, TOTAL				1.4	1.5	1-Aug-09	31-Aug-09
VA0081248	001	COLIFORM, FECAL				2		1-Aug-09	31-Aug-09
VA0081248	001	CL2, TOTAL CONTACT			0.52			1-Aug-09	31-Aug-09
VA0081248	001	FLOW	23.18	33.14				1-Sep-09	30-Sep-09
VA0081248	001	PH			6.4		7.1	1-Sep-09	30-Sep-09
VA0081248	001	BOD5	734	1251		8	12	1-Sep-09	30-Sep-09
VA0081248	001	TSS	1062	1945		12	19	1-Sep-09	30-Sep-09

Permit No	Outfall No	Parameter Description	QTYAVG	QTYMAX	CONCMIN	CONCAVG	CONCMAX	Start Date	End Date
VA0081248	001	CL2, TOTAL				1.5	1.5	1-Sep-09	30-Sep-09
VA0081248	001	COLIFORM, FECAL				1		1-Sep-09	30-Sep-09
VA0081248	001	CL2, TOTAL CONTACT			0.71			1-Sep-09	30-Sep-09
VA0081248	001	FLOW	22.20	24.23				1-Oct-09	31-Oct-09
VA0081248	001	PH			6.4		7.1	1-Oct-09	31-Oct-09
VA0081248	001	BOD5	627	721		8	9	1-Oct-09	31-Oct-09
VA0081248	001	TSS	673	803		8.1	9.9	1-Oct-09	31-Oct-09
VA0081248	001	CL2, TOTAL				1.4	1.5	1-Oct-09	31-Oct-09
VA0081248	001	COLIFORM, FECAL				1		1-Oct-09	31-Oct-09
VA0081248	001	CL2, TOTAL CONTACT			0.75			1-Oct-09	31-Oct-09
VA0081248	001	FLOW	28.20	56.64				1-Nov-09	30-Nov-09
VA0081248	001	PH			6.4		6.8	1-Nov-09	30-Nov-09
VA0081248	001	BOD5	2204	5482		16	31	1-Nov-09	30-Nov-09
VA0081248	001	TSS	2807	6852		21	40	1-Nov-09	30-Nov-09
VA0081248	001	CL2, TOTAL				1.4	1.5	1-Nov-09	30-Nov-09
VA0081248	001	COLIFORM, FECAL				3		1-Nov-09	30-Nov-09
VA0081248	001	CL2, TOTAL CONTACT			0.28			1-Nov-09	30-Nov-09
VA0081248	001	FLOW	32.79	48.24				1-Dec-09	31-Dec-09
VA0081248	001	PH			6.3		6.7	1-Dec-09	31-Dec-09
VA0081248	001	BOD5	1249	1044		10	9	1-Dec-09	31-Dec-09
VA0081248	001	TSS	1504	1286		12	11	1-Dec-09	31-Dec-09
VA0081248	001	CL2, TOTAL				1.5	1.6	1-Dec-09	31-Dec-09
VA0081248	001	COLIFORM, FECAL				2		1-Dec-09	31-Dec-09
VA0081248	001	CL2, TOTAL CONTACT			0.84			1-Dec-09	31-Dec-09
VA0081248	001	FLOW	36.00	42.76				1-Jan-10	31-Jan-10
VA0081248	001	PH			6.2		6.6	1-Jan-10	31-Jan-10
VA0081248	001	BOD5	1378	1762		10	13	1-Jan-10	31-Jan-10
VA0081248	001	TSS	1852	2214		13	16	1-Jan-10	31-Jan-10
VA0081248	001	CL2, TOTAL				1.5	1.6	1-Jan-10	31-Jan-10
VA0081248	001	COLIFORM, FECAL				1		1-Jan-10	31-Jan-10
VA0081248	001	CL2, TOTAL CONTACT			0.15			1-Jan-10	31-Jan-10
VA0081248	001	FLOW	39.12	63.16				1-Feb-10	28-Feb-10
VA0081248	001	PH			6.2		7.0	1-Feb-10	28-Feb-10
VA0081248	001	BOD5	1042	1214		7	8	1-Feb-10	28-Feb-10
VA0081248	001	TSS	1592	1611		11	11	1-Feb-10	28-Feb-10
VA0081248	001	CL2, TOTAL				1.6	1.7	1-Feb-10	28-Feb-10
VA0081248	001	COLIFORM, FECAL				1		1-Feb-10	28-Feb-10
VA0081248	001	CL2, TOTAL CONTACT			0.80			1-Feb-10	28-Feb-10
VA0081248	001	FLOW	36.70	53.04				1-Mar-10	31-Mar-10
VA0081248	001	PH			6.5		7.0	1-Mar-10	31-Mar-10
VA0081248	001	BOD5	1166	950		8	7	1-Mar-10	31-Mar-10
VA0081248	001	TSS	1688	1272		11	9.4	1-Mar-10	31-Mar-10
VA0081248	001	CL2, TOTAL				1.6	1.6	1-Mar-10	31-Mar-10
VA0081248	001	COLIFORM, FECAL				1		1-Mar-10	31-Mar-10
VA0081248	001	CL2, TOTAL CONTACT			0.28			1-Mar-10	31-Mar-10
VA0081248	001	FLOW	33.20	36.65				1-Apr-10	30-Apr-10
VA0081248	001	PH			6.4		7.4	1-Apr-10	30-Apr-10
VA0081248	001	BOD5	1058	1774		9	15	1-Apr-10	30-Apr-10
VA0081248	001	TSS	1443	2168		12	18	1-Apr-10	30-Apr-10
VA0081248	001	CL2, TOTAL				1.6	1.7	1-Apr-10	30-Apr-10
VA0081248	001	COLIFORM, FECAL				5		1-Apr-10	30-Apr-10
VA0081248	001	CL2, TOTAL CONTACT			0.99			1-Apr-10	30-Apr-10
VA0081248	001	FLOW	33.52	44.04				1-May-10	31-May-10
VA0081248	001	PH			6.9		7.3	1-May-10	31-May-10
VA0081248	001	BOD5	950	1253		7	10	1-May-10	31-May-10
VA0081248	001	TSS	638	860		5	7	1-May-10	31-May-10
VA0081248	001	CL2, TOTAL				1.6	1.6	1-May-10	31-May-10

Permit No	Outfall No	Parameter Description	QTYAVG	QTYMAX	CONCMIN	CONCAVG	CONCMAX	Start Date	End Date
VA0081248	001	COLIFORM, FECAL				3		1-May-10	31-May-10
VA0081248	001	CL2, TOTAL CONTACT			0.60			1-May-10	31-May-10
VA0081248	001	FLOW	32.91	35.66				1-Jun-10	30-Jun-10
VA0081248	001	PH			7.0		7.3	1-Jun-10	30-Jun-10
VA0081248	001	BOD5	1216	1225		10	10	1-Jun-10	30-Jun-10
VA0081248	001	TSS	681	778		5.5	6.1	1-Jun-10	30-Jun-10
VA0081248	001	CL2, TOTAL				1.5	1.5	1-Jun-10	30-Jun-10
VA0081248	001	COLIFORM, FECAL				4		1-Jun-10	30-Jun-10
VA0081248	001	CL2, TOTAL CONTACT			0.72			1-Jun-10	30-Jun-10
VA0081248	001	FLOW	32.65	40.83				1-Jul-10	31-Jul-10
VA0081248	001	PH			6.9		7.3	1-Jul-10	31-Jul-10
VA0081248	001	BOD5	464	763		4	6	1-Jul-10	31-Jul-10
VA0081248	001	TSS	489	570		4.0	4.3	1-Jul-10	31-Jul-10
VA0081248	001	CL2, TOTAL				1.5	1.7	1-Jul-10	31-Jul-10
VA0081248	001	COLIFORM, FECAL				2		1-Jul-10	31-Jul-10
VA0081248	001	CL2, TOTAL CONTACT			0.84			1-Jul-10	31-Jul-10
VA0081248	001	FLOW	32.04	38.23				1-Aug-10	31-Aug-10
VA0081248	001	PH			7.0		7.5	1-Aug-10	31-Aug-10
VA0081248	001	BOD5	885	1149		7	10	1-Aug-10	31-Aug-10
VA0081248	001	TSS	588	669		4.9	5.7	1-Aug-10	31-Aug-10
VA0081248	001	CL2, TOTAL				1.6	1.7	1-Aug-10	31-Aug-10
VA0081248	001	COLIFORM, FECAL				3		1-Aug-10	31-Aug-10
VA0081248	001	CL2, TOTAL CONTACT			0.91			1-Aug-10	31-Aug-10
VA0081248	001	FLOW	28.25	41.65				1-Sep-10	30-Sep-10
VA0081248	001	PH			6.9		7.4	1-Sep-10	30-Sep-10
VA0081248	001	BOD5	1405	1427		13	14	1-Sep-10	30-Sep-10
VA0081248	001	TSS	865	899		8.1	8.8	1-Sep-10	30-Sep-10
VA0081248	001	CL2, TOTAL				1.5	1.6	1-Sep-10	30-Sep-10
VA0081248	001	COLIFORM, FECAL				5		1-Sep-10	30-Sep-10
VA0081248	001	CL2, TOTAL CONTACT			0.86			1-Sep-10	30-Sep-10
VA0081248	001	FLOW	29.30	43.16				1-Oct-10	31-Oct-10
VA0081248	001	PH			6.8		7.3	1-Oct-10	31-Oct-10
VA0081248	001	BOD5	1172	1315		11	12	1-Oct-10	31-Oct-10
VA0081248	001	TSS	728	892		6.5	7.6	1-Oct-10	31-Oct-10
VA0081248	001	CL2, TOTAL				1.4	1.5	1-Oct-10	31-Oct-10
VA0081248	001	COLIFORM, FECAL				3		1-Oct-10	31-Oct-10
VA0081248	001	CL2, TOTAL CONTACT			1.0			1-Oct-10	31-Oct-10
VA0081248	001	FLOW	27.37	30.74				1-Nov-10	30-Nov-10
VA0081248	001	PH			6.6		7.2	1-Nov-10	30-Nov-10
VA0081248	001	BOD5	1052	1334		10	13	1-Nov-10	30-Nov-10
VA0081248	001	TSS	1022	1225		9.9	12	1-Nov-10	30-Nov-10
VA0081248	001	CL2, TOTAL				1.5	1.6	1-Nov-10	30-Nov-10
VA0081248	001	COLIFORM, FECAL				2		1-Nov-10	30-Nov-10
VA0081248	001	CL2, TOTAL CONTACT			0.80			1-Nov-10	30-Nov-10
VA0081248	001	FLOW	27.35	34.33				1-Dec-10	31-Dec-10
VA0081248	001	PH			6.7		7.2	1-Dec-10	31-Dec-10
VA0081248	001	BOD5	1138	1262		11	12	1-Dec-10	31-Dec-10
VA0081248	001	TSS	1085	1199		10	12	1-Dec-10	31-Dec-10
VA0081248	001	CL2, TOTAL				1.5	1.6	1-Dec-10	31-Dec-10
VA0081248	001	COLIFORM, FECAL				2		1-Dec-10	31-Dec-10
VA0081248	001	CL2, TOTAL CONTACT			1.1			1-Dec-10	31-Dec-10
VA0081248	001	FLOW	28.40	35.18				1-Jan-11	31-Jan-11
VA0081248	001	PH			6.8		7.2	1-Jan-11	31-Jan-11
VA0081248	001	BOD5	1236	1418		11	13	1-Jan-11	31-Jan-11
VA0081248	001	TSS	996	1170		9.2	10	1-Jan-11	31-Jan-11
VA0081248	001	CL2, TOTAL				1.5	1.5	1-Jan-11	31-Jan-11
VA0081248	001	COLIFORM, FECAL				1		1-Jan-11	31-Jan-11

Permit No	Outfall No	Parameter Description	QTYAVG	QTYMAX	CONCMIN	CONCAVG	CONCMAX	Start Date	End Date
VA0081248	001	CL2, TOTAL CONTACT			0.83			1-Jan-11	31-Jan-11
VA0081248	001	FLOW	30.05	33.31				1-Feb-11	28-Feb-11
VA0081248	001	PH			6.9		7.4	1-Feb-11	28-Feb-11
VA0081248	001	BOD5	1227	1261		11	11	1-Feb-11	28-Feb-11
VA0081248	001	TSS	1009	1119		8.9	10	1-Feb-11	28-Feb-11
VA0081248	001	CL2, TOTAL				1.5	1.5	1-Feb-11	28-Feb-11
VA0081248	001	COLIFORM, FECAL				2		1-Feb-11	28-Feb-11
VA0081248	001	CL2, TOTAL CONTACT			0.96			1-Feb-11	28-Feb-11
VA0081248	001	FLOW	31.17	34.68				1-Mar-11	31-Mar-11
VA0081248	001	PH			6.8		7.4	1-Mar-11	31-Mar-11
VA0081248	001	BOD5	1562	1672		13	14	1-Mar-11	31-Mar-11
VA0081248	001	TSS	832	1075		7.0	8.7	1-Mar-11	31-Mar-11
VA0081248	001	CL2, TOTAL				1.4	1.5	1-Mar-11	31-Mar-11
VA0081248	001	COLIFORM, FECAL				2		1-Mar-11	31-Mar-11
VA0081248	001	CL2, TOTAL CONTACT			0.71			1-Mar-11	31-Mar-11
VA0081248	001	FLOW	30.65	35.18				1-Apr-11	30-Apr-11
VA0081248	001	PH			6.9		7.4	1-Apr-11	30-Apr-11
VA0081248	001	BOD5	1912	2068		16	18	1-Apr-11	30-Apr-11
VA0081248	001	TSS	1041	1130		9.0	9.9	1-Apr-11	30-Apr-11
VA0081248	001	CL2, TOTAL				1.3	1.3	1-Apr-11	30-Apr-11
VA0081248	001	COLIFORM, FECAL				2		1-Apr-11	30-Apr-11
VA0081248	001	CL2, TOTAL CONTACT			0.57			1-Apr-11	30-Apr-11
VA0081248	001	FLOW	29.45	33.02				1-May-11	31-May-11
VA0081248	001	PH			6.8		7.4	1-May-11	31-May-11
VA0081248	001	BOD5	2016	2177		18	21	1-May-11	31-May-11
VA0081248	001	TSS	1276	1715		12	16	1-May-11	31-May-11
VA0081248	001	CL2, TOTAL				1.3	1.3	1-May-11	31-May-11
VA0081248	001	COLIFORM, FECAL				3		1-May-11	31-May-11
VA0081248	001	CL2, TOTAL CONTACT			0.51			1-May-11	31-May-11
VA0081248	001	FLOW	31.98	36.60				1-Jun-11	30-Jun-11
VA0081248	001	PH			6.5		7.3	1-Jun-11	30-Jun-11
VA0081248	001	BOD5	2237	3027		18	25	1-Jun-11	30-Jun-11
VA0081248	001	TSS	739	998		6.1	8.2	1-Jun-11	30-Jun-11
VA0081248	001	CL2, TOTAL				1.4	1.4	1-Jun-11	30-Jun-11
VA0081248	001	COLIFORM, FECAL				9		1-Jun-11	30-Jun-11
VA0081248	001	CL2, TOTAL CONTACT			0.87			1-Jun-11	30-Jun-11
VA0081248	001	FLOW	33.32	38.64				1-Jul-11	31-Jul-11
VA0081248	001	PH			6.5		6.9	1-Jul-11	31-Jul-11
VA0081248	001	BOD5	443	535		4	4	1-Jul-11	31-Jul-11
VA0081248	001	TSS	626	819		5.0	6.3	1-Jul-11	31-Jul-11
VA0081248	001	CL2, TOTAL				1.7	1.8	1-Jul-11	31-Jul-11
VA0081248	001	COLIFORM, FECAL				2		1-Jul-11	31-Jul-11
VA0081248	001	CL2, TOTAL CONTACT			0.55			1-Jul-11	31-Jul-11

Data pulled from Discoverer 9/14/11. All data for this facility is included.

DDA

Ammonia data were collected for the permit application. HRSD ran DEQ's most recent computer program for evaluating the need for limits using 10 data points, all with a QL of 0.20 ug/L. This program determined that no limit for ammonia was necessary for this facility given acute (109: 1) and chronic (741:1) mixing zone dilutions (see output below).

6/3/2011 7:30:29 AM

Facility = Atlantic STP
Chemical = Ammonia
Chronic averaging period = 30
WLAa = 59
WLAc = 50
Q.L. = 0.2
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:
observations = 10
Expected Value = 36.7820
Variance = 15.4806
C.V. = 0.106969
97th percentile daily values = 44.6993
97th percentile 4 day average = 40.6140
97th percentile 30 day average= 38.1332
< Q.L. = 0
Model used = lognormal

No Limit is required for this material

The data are:

32.1
32.3
39.6
42.2
33.3
32.4
37.6
41.1
38.4
38.6

PLANT TOXICS DATA REVIEW

The final effluent data collected for the Atlantic Plant's 2011 VPDES permit application is discussed below.

Monitoring activities did not identify quantifiable total nor dissolved metals or organics in the Atlantic plant final effluent. Reasonable potential determinations are therefore not necessary for these parameters.

A total of three cyanide data points were collected for the Atlantic Plant permit application using an appropriate quantification limit (QL = 10 ppb). Two additional cyanide data points were collected but the QLs were inappropriate for evaluating reasonable potential (QL = 30 ppb). HRSD ran DEQ's most recent computer program for evaluating the need for limits using the 3 data points with appropriate QLs (results [ppb] <10, <10, 14). This program determined that no limit for cyanide was necessary for this facility given acute (109: 1) and chronic (741:1) mixing zone dilutions (see output below).

4/19/2011 7:58:29 AM

Facility = Atlantic STP
Chemical = Cyanide
Chronic averaging period = 30
WLAa = 27
WLAc = 190
Q.L. = 10
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:

observations = 3
Expected Value = 9.27748
Variance = 30.9858
C.V. = 0.6
97th percentile daily values = 22.5760
97th percentile 4 day average = 15.4357
97th percentile 30 day average= 11.1891
< Q.L. = 2
Model used = BPJ Assumptions, Type 1 data

No Limit is required for this material

The data are:

0
0
14

9/14/2011 6:57:18 AM

Facility = HRSD Atlantic
Chemical = cyanide
Chronic averaging period = 4
WLAa = ~~190~~ 109
WLAc = 741
Q.L. = 10
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:

observations = 5
Expected Value = 13.4205
Variance = 64.8398
C.V. = 0.6
97th percentile daily values = 32.6577
97th percentile 4 day average = 22.3289
97th percentile 30 day average= 16.1858
< Q.L. = 2
Model used = BPJ Assumptions, Type 1 data

No Limit is required for this material

The data are:

0
0
14
30
30

Run by DOA 9/14/11
Using WQS of 1.0ug/L for both Acute & Chronic 2/10 WQS. HRSD has an approved mix of 109:1 acute & 741:1 Chronic. Using all data points collected by HRSD, a limit is still not needed.

REDUCED MONITORING

Atlantic STP began daily monitoring for Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), and Fecal Coliform (FC) on May 1, 2010 as directed by the current permit. Below is a summary of the monthly averages since daily sampling has been implemented.

MONTH	BOD	TSS	Fecal Coliform
May 2010	7	5	3
June 2010	10	5.5	4
July 2010	4	4.0	2
August 2010	7	4.9	3
September 2010	13	8.1	5
October 2010	11	6.5	3
November 2010	10	9.9	2
December 2010	11	10	2
January 2011	11	9.2	1
February 2011	11	8.9	2
March 2011	13	7.0	2
April 2011	16	9.0	2
Average	10	7	3
Percent of Permit limit	34%	24%	1%

Guidance Memorandum 98-2005 recommends that three years of plant performance data be reviewed prior to determining if a facility is eligible for reduced monitoring. The three-year monitoring period will end in April 2013 which is only 14 months into the Atlantic STP 60-month permit term, based on a reissuance date of January 2012. The first year's worth of data indicates that it is very likely that the Atlantic STP will be eligible for reduced monitoring. Therefore, HRSD requests that language be included in the VPDES permit which allows for modification of the sample frequency upon DEQ's review of the May 2010 to April 2013 DMR data.

VIRGINIA DEQ NO EXPOSURE CERTIFICATION
FOR EXCLUSION FROM VPDES STORM WATER PERMITTING

Submission of this **No Exposure Certification** constitutes notice that the entity identified below does not require permit authorization for its storm water discharges associated with industrial activity under the VPDES Permit Program due to the existence of a condition of **No Exposure**.

A condition of **No Exposure** exists at an industrial facility when all industrial materials and activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product or waste product. A storm resistant shelter is not required for the following industrial materials and activities:

- drums, barrels, tanks, and similar containers that are tightly sealed, provided those containers are not deteriorated and do not leak. "Sealed" means banded or otherwise secured and without operational taps or valves;
- adequately maintained vehicles used in material handling; and
- final products, other than products that would be mobilized in storm water discharges (e.g., rock salt).

A No Exposure Certification must be provided for each facility qualifying for the No Exposure exclusion. In addition, the exclusion from VPDES permitting is available on a facility-wide basis only, not for individual outfalls. If any industrial activities or materials are or will be exposed to precipitation, the facility is not eligible for the No Exposure exclusion.

By signing and submitting this No Exposure Certification form, the entity below is certifying that a condition of No Exposure exists at its facility or site, and is obligated to comply with the terms and conditions at 9 VAC 25-31-120 E (the VPDES Permit Regulation).

Please Type or Print All Information: ALL INFORMATION ON THIS FORM MUST BE PROVIDED.

1. **Facility Operator Information**

   Name: Hampton Roads Sanitation District

   Mailing Address: 1436 Air Rail Avenue

   City: Virginia Beach State: VA Zip: 23455 Phone: 757-460-2261

2. **Facility/Site Location Information**

   Facility Name: Atlantic STP

   Address: 645 Firefall Drive

   City: Virginia Beach State: VA Zip: 23454

   County Name: NA

   Latitude: 36 46' 15" N Longitude: 75 58' 15" N

3. **Was the facility or site previously covered under a VPDES storm water permit?** Yes ☒ No ☐

   If "Yes", enter the VPDES permit number: VA0081248

4. **SIC/Activity Codes:** Primary: 4952 Secondary (if applicable): _____

5. **Total size of facility/site associated with industrial activity:** 48.4 acres

6. **Have you paved or roofed over a formerly exposed pervious area in order to qualify for the No Exposure exclusion?** Yes ☐ No ☒

   If "Yes", please indicate approximately how much area was paved or roofed. Completing this question does not disqualify you for the No Exposure exclusion. However, DEQ may use this information in considering whether storm water discharges from your site are likely to have an adverse impact on water quality, in which case you could be required to obtain permit coverage.

   Less than one acre ☐ One to five acres ☐ More than five acres ☐

7. Exposure Checklist

Are any of the following materials or activities exposed to precipitation, now or in the foreseeable future? (Please check either "Yes" or "No" in the appropriate box.) **If you answer "Yes" to any of these questions (1) through (11), you are <u>not</u> eligible for the No Exposure exclusion.**

	Yes	No
(1) Using, storing or cleaning industrial machinery or equipment, and areas where residuals from using, storing or cleaning industrial machinery or equipment remain and are exposed to storm water	☐	☒
(2) Materials or residuals on the ground or in storm water inlets from spill/leaks	☐	☒
(3) Materials or products from past industrial activity	☐	☒
(4) Material handling equipment (except adequately maintained vehicles)	☐	☒
(5) Materials or products during loading/unloading or transporting activities	☐	☒
(6) Materials or products stored outdoors (except final products intended for outside use [e.g., new cars] where exposure to storm water does not result in the discharge of pollutants)	☐	☒
(7) Materials contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers	☐	☒
(8) Materials or products handled/stored on roads or railways owned or maintained by the discharger	☐	☒
(9) Waste material (except waste in covered, non-leaking containers [e.g., dumpsters])	☐	☒
(10) Application or disposal of process wastewater (unless otherwise permitted)	☐	☒
(11) Particulate matter or visible deposits of residuals from roof stacks and/or vents not otherwise regulated (i.e., under an air quality control permit) and evident in the storm water outflow	☐	☒

8. Certification Statement

I certify under penalty of law that I have read and understand the eligibility requirements for claiming a condition of no exposure and obtaining an exclusion from VPDES storm water permitting; and that there are no discharges of storm water contaminated by exposure to industrial activities or materials from the industrial facility identified in this document (except as allowed under 9 VAC 25-31-120 E 2).

I understand that I am obligated to submit a No Exposure Certification form once every five years to the Department of Environmental Quality and, if requested, to the operator of the local MS4 into which this facility discharges (where applicable). I understand that I must allow the Department, or MS4 operator where the discharge is into the local MS4, to perform inspections to confirm the condition of no exposure and to make such inspection reports publicly available upon request. I understand that I must obtain coverage under a VPDES permit prior to any point source discharge of storm water associated with industrial activity from the facility.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly involved in gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name: Edward G. Henifin, P.E.

Print Title: General Manager

Signature: [signature]

Date: 6/6/2011

For Department of Environmental Quality Use Only

Accepted/Not Accepted by: _____ Date: _____

Austin, Deanna (DEQ)

From: Patricia Johnson [ljohnson@cityofchesapeake.net]
Sent: Tuesday, July 12, 2011 3:25 PM
To: Austin, Deanna (DEQ)
Subject: Re: Adjacent Landowner Request Info
Attachments: ATLANTICSTPVA0081248.XLS

I hope this helps.

Patricia Johnson
GIS Specialist
City Of Chesapeake
Real Estate Assessor's Office
Phone (757) 382-6073
FAX (757) 382-6844
ljohnson@Cityofchesapeake.net
"You must be the change you wish to see in the world"

>>> "Austin, Deanna (DEQ)" <Deanna.Austin@deq.virginia.gov> 7/6/2011 9:42 AM >>>
Good Morning,
I've attached a letter that has gone out in the mail to your office this AM. If you have any questions, please let me know.

Deanna Austin
DEQ-TRO Water Permits
5636 Southern Blvd
Virginia Beach, VA 23462
Phone: 757-518-2008
Fax: 757-518-2009

MAP_PARCEL	OWNER	MADDRESS	MCITY	MSTATE	MZIP	ADDRESS
1190000000020	BRYANT CHARLES W ET ALS	516 ENGLEWOOD DR	VIRGINIA BEACH	VA	234620000	330 NECK RD
1190000000040	BRYANT CHARLES W ET ALS	516 ENGLEWOOD DR	VIRGINIA BEACH	VA	234620000	232 NECK RD
1190000000050	BRYANT CHARLES W ET ALS	4876 PRINCESS ANNE RD #118 153	VIRGINIA BEACH	VA	234620000	NECK RD
1190000000060	BRYANT CHARLES W ET ALS	4876-118 PRINCESS ANNE RD 153	VIRGINIA BEACH	VA	234620000	NECK RD
1190000000080	BRIDLE WOOD FARMS L L C	5847 HARGROVE ST	NORFOLK	VA	235024636	NECK RD
1200000000030	COMMONWEALTH VA DEPT CONSV & REC	1815 N LYNN ST	ARLINGTON	VA	222092003	NECK RD
1200000000040	BRYANT CHARLES W ET ALS	4876 PRINCESS ANNE RD #118 153	VIRGINIA BEACH	VA	234620000	NECK RD
1200000000060	POWERS ZETA	4521 OLD BATTLEFIELD BLVD S	CHESAPEAKE	VA	233222473	NECK RD

MAP_PARCEL	OWNER	ADDRESS	MADDRESS	MCITY	MSTATE	MZIP
0500000000140	WENGER HOMER A	1881 MOUNT PLEASANT RD	1881 MOUNT PLEAS	CHESAPEAKE	VA	233221216
0500000000160	KEFFER H LYNN & DEBRA L	1953 MOUNT PLEASANT RD	700 BEDFORD ST	CHESAPEAKE	VA	233221611
0500000000161	MAST CHESTER N & JERROLYN R	420 WENGER RD	420 WENGER RD	CHESAPEAKE	VA	233221609
0500000000350	SLABAUGH OLIN & CAROL	MOUNT PLEASANT RD	2304 MT PLEASANT	CHESAPEAKE	VA	233220000
0500000000370	CLENDENNING GARY WAYNE ET ALS	1952 MOUNT PLEASANT RD	1936 MOUNT PLEAS	CHESAPEAKE	VA	233221250
0500000000381	VANDERPLOEG BETTY S & R L TRS	1932 MOUNT PLEASANT RD	1932 MOUNT PLEAS	CHESAPEAKE	VA	233221250

MAP_PARCEL	OWNER	ADDRESS	MADDRESS	MCITY	MSTATE	MZIP
0500000000140	WENGER HOMER A	1881 MOUNT PLEASANT RD	1881 MOUNT PLEAS	CHESAPEAKE	VA	233221216
0500000000160	KEFFER H LYNN & DEBRA L	1953 MOUNT PLEASANT RD	700 BEDFORD ST	CHESAPEAKE	VA	233221611
0500000000161	MAST CHESTER N & JERROLYN R	420 WENGER RD	420 WENGER RD	CHESAPEAKE	VA	233221609
0500000000350	SLABAUGH OLIN & CAROL	MOUNT PLEASANT RD	2304 MT PLEASANT	CHESAPEAKE	VA	233220000
0500000000370	CLENDENNING GARY WAYNE ET ALS	1952 MOUNT PLEASANT RD	1936 MOUNT PLEAS	CHESAPEAKE	VA	233221250
0500000000381	VANDERPLOEG BETTY S & R L TRS	1932 MOUNT PLEASANT RD	1932 MOUNT PLEAS	CHESAPEAKE	VA	233221250
1080000000170	HARRELL PROPERTIES LLC	GALLBUSH RD	PO BOX 127	ROPER	NC	279700000
1080000000210	CITY OF CHESAPEAKE	INDIAN CREEK RD	920 FENTRESS LOOP	CHESAPEAKE	VA	23322
1080000000251	KING MARY W	1015 INDIAN CREEK RD	1015 INDIAN CREEK	CHESAPEAKE	VA	233222057
1080000000254	NORFLEET LARRY C & MARGARET G	INDIAN CREEK RD	316 HICKORY WOOD	CHESAPEAKE	VA	233222305
1080000000600	PRESBYTERIAN HMS & FAM SRVS INC	GALLBUSH RD	150 LINDEN AVE	LYNCHBURG	VA	245032010

1090000000250	SMITH ALBERTA	INDIAN CREEK RD	6512 WALKER BRAN	LAUREL	MD	20707
1090000000480	CERNY BRYAN J ET ALS	720 GALLBUSH RD	1105 FRIESIAN CT	CHESAPEAKI	VA	233220000
1090000000560	NORMAN TIMOTHY S	1025 INDIAN CREEK RD	18494 KAYLA DR	BARHAMSVI	VA	230112383
1090000000570	OLD ROBERT E JR	1041 INDIAN CREEK RD	311 JOHNSTOWN RI	CHESAPEAKI	VA	233225309
1090000000571	MILLS WILLIAM C JR & SANDRA S	1045 INDIAN CREEK RD	1045 INDIAN CREEK	CHESAPEAKI	VA	233222057
1090000000580	DAILEY JAMES W & VALERIE G	1109 INDIAN CREEK RD	1109 INDIAN CREEK	CHESAPEAKI	VA	233222056
1090000000590	SUMMERLIN HORACE M JR & MARY E	1117 INDIAN CREEK RD	1117 INDIAN CREEK	CHESAPEAKI	VA	233222056
1090000000620	MINK JAMES W & DELORES H	1125 INDIAN CREEK RD	1125 INDIAN CREEK	CHESAPEAKI	VA	233222056
1090000000630	PAYNE RONALD A SR & TAMMY LYNN	1137 INDIAN CREEK RD	1137 INDIAN CREEK	CHESAPEAKI	VA	233222056
1090000000640	BANK OF NEW YORK MELLON	1153 INDIAN CREEK RD	7105 CORPORATE DI	PLANO	TX	750240000
1090000000650	HIGGERSON MARK K	1157 INDIAN CREEK RD	1157 INDIAN CREEK	CHESAPEAKI	VA	233222056
1090000000651	LEWIS ALLISON H ET AL	800 GALLBUSH RD	800 GALLBUSH RD	CHESAPEAKI	VA	233222067
1090000000680	SOREY ARCHIE C JR & DONNA L	712 GALLBUSH RD	136 FRANK DR	CHESAPEAKI	VA	233225408

MAP_PARCEL	OWNER	ADDRESS	MADDRESS	MCITY	MSTATE	MZIP
0990000000071	SIVELS MODESTINE M & SANDRA A	1816 SANDERSON RD	1816 SANDERSON RI	CHESAPEAKI	VA	233221572
0990000000090	RIDDICK CECIL P TR ET ALS	SANDERSON RD	5769 BLACKWATER I	VIRGINIA BE	VA	234571014
0990000000100	MORRIS THOMAS E & KAREN E	SANDERSON RD	1840 SANDERSON RI	CHESAPEAKI	VA	233221572
0990000000120	IVES FAMILY PARTNERSHIP V LLC	CEDARVILLE RD	11 COUNTRY CLUB P	BLOOMINGT	IL	617013486

Austin, Deanna (DEQ)

From: Denise S. Dunthorn [ddunthor@vbgov.com]
Sent: Thursday, July 07, 2011 10:46 AM
To: Austin, Deanna (DEQ)
Cc: Deanna Board; Eric Schmudde; VIRGINIA BEACH LA - PRIMARY (DMV); Sharon G. Courtney
Subject: RE: Adjacent Landowner Information Request
Attachments: aygrn.xlsx; Horsley.xlsx; Meiszer.xlsx; Lovitt.xlsx; Vaughan-Vaughan.Lloyd.xlsx

Dear Ms. Austin,

Attached are the adjacent landowners for the requested properties.
Please let me know if you need any further information.

Thank you,

Denise S. Dunthorn
Supervising Agent for Assessment Services
2401 Courthouse Drive Bldg. #1
Virginia Beach, VA 23456-9002
Telephone: 757.385.1904
Facsimile: 757.427.1589
Email @: ddunthor@vbgov.com
Save time visit online at vbgov.com
Philip J. Kellam, Commissioner

The information contained in this electronic message is legally privileged and confidential under title 58.1-3 of the Code of Virginia and all other applicable laws.

Begin forwarded message:

> **From:** "COR Administration" <CORAdmin@vbgov.com>
> **To:** "Mary Anne Zink" <MAZink@vbgov.com>, "Eric Schmudde" <eschmudd@vbgov.com>
> **Subject: FW: Adjacent Landowner Information Request**
>
> ---
> From: Austin, Deanna (DEQ)[SMTP:DEANNA.AUSTIN@DEQ.VIRGINIA.GOV]
> Sent: Wednesday, July 06, 2011 9:29:45 AM
> To: COR Administration
> Subject: Adjacent Landowner Information Request
> Auto forwarded by a Rule
>
> The attached letter went out in the mail to your office today. If you have any questions, please feel free to contact me.
>
> Deanna Austin
>
> DEQ-TRO Water Permits

GPIN	Owner_Name	Owner_St	Owner_City	Owner_State_Zip	
2400-34-7780-0000	HARTLEY PETER RAY	2301 S STOWE RD	VIRGINIA BEACH	23457-1418	
2400-24-7715-0000	CULPEPPER HERBERT A JR ETAL	2232 CEDAR CRESCENT CT	VIRGINIA BEACH	23457-1411	
2400-44-0951-0000	SMITH WILLIAM D & SMITH LILLIAN M	2265 STOWE RD	VIRGINIA BEACH	23457-1422	
2400-24-2388-0000	BIESANZ BRYAN W & BIESANZ SARAH M	2244 CEDAR CRESCENT CT	VIRGINIA BEACH	23457-1411	
2400-13-1382-0000	MILLER GLENN REX & MILLER ANGELA MARIE	1409 WATER MILL CIR	VIRGINIA BEACH	23454-1359	
2400-26-5653-0000	KROLL JEFFREY A & KROLL MARYELLEN W	2216 STOWE RD	VIRGINIA BEACH	23457-1421	
2400-06-3564-0000	BOUDREAUX LINDA S	23 VERNON GLEN CT	ATLANTA	30338-5420	
2400-35-5554-0000	DANIELLO JUDITH P	1736 BACK BAY LANDING RD	VIRGINIA BEACH	23457-1359	
2400-45-3407-0000	TARVIN DAVID K & TARVIN ALLENA Y	2249 STOWE RD	VIRGINIA BEACH	23457-1422	
2400-24-0153-0000	RAW PROPERTIES LLC	1771 PRINCESS ANNE RD	VIRGINIA BEACH	23456-3835	
2400-34-4712-0000	SPIVEY MITCHELL L & SPIVEY MARYJANE	2284 STOWE RD	VIRGINIA BEACH	23457-1421	
2400-45-3247-0000	TARVIN WILLIAM B & TARVIN WILMA L	2261 STOWE RD	VIRGINIA BEACH	23457-1422	
2400-45-1019-0000	SMITH WILLIAM D & SMITH LILLIAN M	2265 STOWE RD	VIRGINIA BEACH	23457-1422	
2400-34-4865-0000	SMITH RICHARD M & SMITH DEBORAH B	2276 STOWE RD	VIRGINIA BEACH	23457-1421	
GPIN	Owner_Name	Owner_St	Owner_City	Owner_State_Zip	
1480-54-2473-0000	RALPH LEE FROST FAMILY TRUST	3169 LAND OF PROMISE RD	VIRGINIA BEACH	23457-1126	
1480-34-4508-0000	RALPH LEE FROST FAMILY TRUST	3169 LAND OF PROMISE RD	VIRGINIA BEACH	23457-1126	
1480-11-9752-0000	BLAKELY PATRICIA ANN ETAL	664 LAUREL FOREST DR	CLARKSVILLE	23927-2521	
1389-19-7555-0000	DANIELS NANCY M	3572 OLD CAROLINA RD	VIRGINIA BEACH	23457-1130	
1389-19-7555-0000	DANIELS NANCY M	3572 OLD CAROLINA RD	VIRGINIA BEACH	23457-1130	
1389-19-7555-0000	DANIELS NANCY M	3572 OLD CAROLINA RD	VIRGINIA BEACH	23457-1130	
1389-19-7555-0000	DANIELS NANCY M	3572 OLD CAROLINA RD	VIRGINIA BEACH	23457-1130	
1389-19-7555-0000	DANIELS NANCY M	3572 OLD CAROLINA RD	VIRGINIA BEACH	23457-1130	
1389-19-7555-0000	DANIELS NANCY M	3572 OLD CAROLINA RD	VIRGINIA BEACH	23457-1130	
1389-19-7555-0000	DANIELS NANCY M	3572 OLD CAROLINA RD	VIRGINIA BEACH	23457-1130	
1389-19-7555-0000	DANIELS NANCY M	3572 OLD CAROLINA RD	VIRGINIA BEACH	23457-1130	
1480-04-7850-0000	SPENCE ALBERT JR ETAL	2245 LONG RIDGE RD	CHESAPEAKE	23322-1436	
1389-19-7555-0000	DANIELS NANCY M	3572 OLD CAROLINA RD	VIRGINIA BEACH	23457-1130	
1389-19-7555-0000	DANIELS NANCY M	3572 OLD CAROLINA RD	VIRGINIA BEACH	23457-1130	
1389-19-7555-0000	DANIELS NANCY M	3572 OLD CAROLINA RD	VIRGINIA BEACH	23457-1130	
1389-19-7555-0000	DANIELS NANCY M	3572 OLD CAROLINA RD	VIRGINIA BEACH	23457-1130	
1389-39-5021-0000	FINK JONATHAN P & FINK ROSALYNNE L	3460 OLD CAROLINA RD	VIRGINIA BEACH	23457-1168	
1389-39-1691-0000	MAWYER RALPH AMOS JR & MAWYER SANDRA M	3464 OLD CAROLINA RD	VIRGINIA BEACH	23457-1168	

1480-41-8814-0000	VENABLE REAL ESTATE LP	937 WINWOOD DR	VIRGINIA BEACH	23451-5934	
1480-31-9794-0000	VENABLE REAL ESTATE LP	937 WINWOOD DR	VIRGINIA BEACH	23451-5934	
1389-19-7555-0000	DANIELS NANCY M	3572 OLD CAROLINA RD	VIRGINIA BEACH	23457-1130	
1389-19-7555-0000	DANIELS NANCY M	3572 OLD CAROLINA RD	VIRGINIA BEACH	23457-1130	
1389-19-7555-0000	DANIELS NANCY M	3572 OLD CAROLINA RD	VIRGINIA BEACH	23457-1130	
1389-19-7555-0000	DANIELS NANCY M	3572 OLD CAROLINA RD	VIRGINIA BEACH	23457-1130	
1389-49-2548-0000	SYKES BENJAMIN L	PO BOX 57012	VIRGINIA BEACH	23457-0312	
GPIN	Owner_Name	Owner_St	Owner_City	Owner_State_Zip	
2401-73-7568-0000	MICKIEWICZ RONALD J & MICKIEWICZ PHYLLIS L	2009 PUNGO RIDGE CT	VIRGINIA BEACH	23457-1588	
2401-84-2633-0000	CULLEN COLLEEN C	1309 PRINCESS ANNE RD	VIRGINIA BEACH	23457-1542	
2401-84-1298-0000	CURRY MYRALYN H SAMUEL W	1301 PRINCESS ANNE RD	VIRGINIA BEACH	23457-1542	
2401-74-9070-0000	BROCK ALLAN W JR	1001 HORN POINT RD	VIRGINIA BEACH	23456-4123	
2401-84-3743-0000	STILLMAN RONALD LEE & STILLMAN GERALDINE R	1317 PRINCESS ANNE RD	VIRGINIA BEACH	23457-1542	
2401-92-6325-0000	HOLLY ROAD LLC ETAL	4510 HOLLY RD	VIRGINIA BEACH	23451-2540	
2401-73-5406-0000	TODESCHI KEVIN J & TODESCHI MARY ROACH	2013 PUNGO RIDGE CT	VIRGINIA BEACH	23457-1588	
2401-62-4673-0000	BROCK RONALD T & HARRELL JAMES F	PO BOX 7070	VIRGINIA BEACH	23457-0070	
2401-72-5508-0000	LEEK FRANZ M & LEEK FAITH LEEK E	1247 PRINCESS ANNE RD	VIRGINIA BEACH	23457-1590	
2401-73-8801-0000	GAMBONI EVO L & GAMBONI SUSAN F	2005 PUNGO RIDGE CT	VIRGINIA BEACH	23457-1588	
2401-84-2476-0000	CARY KATHLEEN B & CARY JOSEPH ELLIOTT	1305 PRINCESS ANNE RD	VIRGINIA BEACH	23457-1542	
2401-72-4948-0000	BROCK RONALD T & HARRELL JAMES F	PO BOX 7070	VIRGINIA BEACH	23457-0070	
2411-12-7934-0000	ANDERSON KEVIN D & ANDERSON MAUREEN J	4188 GUM BRIDGE CT	VIRGINIA BEACH	23457-1593	
2401-83-4830-0000	MEISZER NICHOLAS M & MEISZER DORIS V	1252 PRINCESS ANNE RD	VIRGINIA BEACH	23457-1589	
2411-04-6174-0000	BROCK EDWIN S JR ETAL	437 PLEASANT POINT DR	NORFOLK	23502-5703	
2401-94-0423-0000	LEE DONN JR	2729 CANTWELL RD	VIRGINIA BEACH	23453-6633	

GPIN	Owner_Name	Owner_St	Owner_City	Owner_State_Zip	
2411-27-7003-0000	BRANT FRANKLIN H & BRANT LEANNE W	4108 CHARITY NECK RD	VIRGINIA BEACH	23457-1502	
2411-56-6861-0000	BROCK ALLAN W SR	1762 PRINCESS ANNE RD	VIRGINIA BEACH	23456-3807	
2411-35-4677-0000	LOVITT DARWIN R & LOVITT CAROLYN B	3997 MUDDY CREEK RD	VIRGINIA BEACH	23457-1528	
2411-37-4524-0000	RENFRO JAMES D & RENFRO KATHLEEN D	3940 DAWLEY RD	VIRGINIA BEACH	23457-1550	
2411-37-2032-0000	KEANE DENNIS J & KEANE DEBRA A	3968 DAWLEY RD	VIRGINIA BEACH	23457-1550	
2411-26-6648-0000	HODGES JEFFREY M	3993 DAWLEY RD	VIRGINIA BEACH	23457-1553	
2411-37-2271-0000	RAMSEY LEMUEL C	3960 DAWLEY RD	VIRGINIA BEACH	23457-1550	
2411-37-3420-0000	SMITH JAMES FRANK JR ETUX	3956 DAWLEY RD	VIRGINIA BEACH	23457-1550	
2411-45-2415-0000	DIERSEN JAMES F & DIERSEN TRACEY A	1780 GUM BRIDGE RD	VIRGINIA BEACH	23457-1511	
2411-26-6779-0000	WILLIAMS JOHNIE ELIJAH & WILLIAMS WILLIE M	3989 DAWLEY RD	VIRGINIA BEACH	23457-1553	
2411-27-8120-0000	BELL VICTORIA LYNN	425 PRINCESS ANNE RD	VIRGINIA BEACH	23457-1231	
2411-26-7809-0000	BELL RUTH WILLIAMS	3981 DAWLEY RD	VIRGINIA BEACH	23457-1553	
2411-26-5314-0000	HOFFENBERGER JOSEPH B	4021 DAWLEY RD	VIRGINIA BEACH	23457-1552	
GPIN	Owner_Name	Owner_St	Owner_City	Owner_State_Zip	
2401-44-5986-0000	DEPEW DUANE I & DEPEW EMMA JUNE	2224 VAUGHAN RD	VIRGINIA BEACH	23457-1523	
2401-35-2670-0000	VAUGHAN EDWARD L ESTATE	2253 VAUGHAN RD	VIRGINIA BEACH	23457-1540	
2401-56-1449-0000	VIRGINIA BEACH AIRPORT LLC	4455 SOUTH BLVD STE 500	VIRGINIA BEACH	23452-1387	
2401-28-7374-0000	VAUGHAN ROBERT P & VAUGHAN KAREN G	2388 VAUGHAN RD	VIRGINIA BEACH	23457-1584	
2401-28-7374-0000	VAUGHAN ROBERT P & VAUGHAN KAREN G	2388 VAUGHAN RD	VIRGINIA BEACH	23457-1584	
2401-37-3220-0000	VAUGHAN DONNA M	2373 VAUGHAN RD	VIRGINIA BEACH	23457-1585	
2401-28-7374-0000	VAUGHAN ROBERT P & VAUGHAN KAREN G	2388 VAUGHAN RD	VIRGINIA BEACH	23457-1584	
2401-28-7374-0000	VAUGHAN ROBERT P & VAUGHAN KAREN G	2388 VAUGHAN RD	VIRGINIA BEACH	23457-1584	
2401-43-5884-0000	LANTEIGNE PAUL J & LANTEIGNE LAUREN T	2061 PUNGO RIDGE CT	VIRGINIA BEACH	23457-1588	
2401-35-8604-0000	VAUGHAN ROBERT P	2388 VAUGHAN RD	VIRGINIA BEACH	23457-1584	
2401-24-6810-0000	VAUGHAN EDWARD L ESTATE	2253 VAUGHAN RD	VIRGINIA BEACH	23457-1540	
2401-44-2541-0000	WATSON VICTOR J & WATSON VICKI L	77 RAINBOW RUN	ALBANY	42602-6691	
2401-15-4705-0000	VAUGHAN EDWARD L ESTATE	2253 VAUGHAN RD	VIRGINIA BEACH	23457-1540	
2401-44-7385-0000	HEATH WILL E & HEATH PAULINE S	2060 PUNGO RIDGE CT	VIRGINIA BEACH	23457-1588	
2401-35-4006-0000	VAUGHAN EDWARD L ESTATE	2253 VAUGHAN RD	VIRGINIA BEACH	23457-1540	
2401-46-1924-0000	MUNDEN DOUGLAS B	1377 PRINCESS ANNE RD	VIRGINIA BEACH	23457-1542	
2402-30-8348-0000	LILLY INCORPORATED OF VIRGINIA	332 CAVALIER DR	VIRGINIA BEACH	23451-2559	
2401-45-5764-0000	DEPEW EMMA JUNE & DEPEW DUANE I	2224 VAUGHAN RD	VIRGINIA BEACH	23457-1523	
2401-36-7317-0000	VAUGHAN ROBERT HANK & VAUGHAN JENNIFER H	2301 VAUGHAN RD	VIRGINIA BEACH	23457-1585	
2401-32-4092-0000	RICHARDSON WARREN L	1229 PRINCESS ANNE RD	VIRGINIA BEACH	23457-1590	
2401-44-6458-0000	BEST MARY EWING FEARS	2065 VAUGHAN RD	VIRGINIA BEACH	23457-1538	
1491-83-8631-0000	COMMONWEALTH OF VIRGINIA	101 N 14TH ST FL 11	RICHMOND	23219-3684	
2401-17-5141-0000	CUSHING SEAN T & CUSHING JULIE W	2601 CANTWELL RD	VIRGINIA BEACH	23453-6646	
2401-44-4444-0000	HUGEN BRIAN P & HUGEN FLORENCE J	2201 VAUGHAN RD	VIRGINIA BEACH	23457-1540	

2401-58-2104-0000	VERA F MUNDEN RLT	1376 PRINCESS ANNE RD	VIRGINIA BEACH	23457-1541	
2401-12-4583-0000	VAUGHAN ROBERT & et al	2388 VAUGHAN RD	VIRGINIA BEACH	23457-1584	
2401-16-7454-0000	LANE STEPHEN V & et al	712 NICHOLE LN	ROCKY MOUNT	27803-1541	
2401-43-8080-0000	BROCK RONALD T & HARRELL JAMES F	PO BOX 7070	VIRGINIA BEACH	23457-0070	
2401-49-6454-0000	LILLY INCORPORATED OF VIRGINIA	332 CAVALIER DR	VIRGINIA BEACH	23451-2559	
2401-44-1515-0000	LAWRENCE RICHARD T	2221 VAUGHAN RD	VIRGINIA BEACH	23457-1540	

ATLANTIC STP VA0081248 PROPOSED SITES FOR PERMIT

Landowner	City	Site	Usable Acres	Latitude	Longitude	Location
Thomas Morris	Chesapeake	T-478	17.2	N36°36'35.09"	W76°07'54.25a'	1840 Sanderson Road
Mary Clendenning	Chesapeake	T-1296	5.9	N36°42'43.43"	W76°08'26.32"	1936 Mt. Pleasant Rd
Robert Old	Chesapeake	T-485	35.7	N36°34'33.79"	W76°11'11.43"	Between Indian Creek Rd. and Gallbush Rd.
Neil Powers	Chesapeake	T-934	23.3	N36°33'43.37"	W76°11'29.53"	Off of Neck Rd.
			82.1			
Donald Horsley	Virginia Beach (1)	T-9	71.9	N36°39'05.40"	W76°06'48.50"	Land of Promise Rd.
Kathy Vaughan-Lloyd	Virginia Beach (2)	T-4380	32.9	N36°38'29.20"	W76°01'37.87"	Vaughan Road
William Vaughan	Virginia Beach (3)	T-4341	13.6	N36°40'29.20"	W76°01'37.87"	Vaughan Road
William Vaughan	Virginia Beach (4)	T-4467	15.6	N36°40'29.20"	W76°01'37.87"	Vaughan Road
Nicholas M. Meiszer	Virginia Beach (5)	T-4488	73.5	N36°40'29.20"	W76°00'52.38"	Princess Anne Rd. and Vaughan Rd.
Wilmar Aygarn	Virginia Beach (6)	T-4397	35.2	N36°38'59.06"	W76°03'11.93"	Stowe Road
Carolyn Lovitt	Virginia Beach (7)	T-294	54.4	N36°40'29.20"	W76°00'52.38"	Corner of Gum Bridge Rd and Dawley Rd
			297.1			
			379.2			

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
5636 Southern Boulevard, Virginia Beach, Virginia 23462
(757) 518-2000 Fax (757) 518-2009
www.deq.virginia.gov

Doug Domenech
Secretary of Natural Resources

David K. Paylor
Director

Maria R. Nold
Regional Director

October 3, 2011

RE: VPDES Permit Reissuance-HRSD Atlantic STP –VA0081248
Addition of New Land Application Sites

Dear Property Owner:

The Department of Environmental Quality (DEQ) has received a request from Hampton Roads Sanitation District (HRSD) for the addition of 379 acres of new land application sites to be listed in the Atlantic VPDES permit. Biosolids will be land applied. Biosolids are high quality, sanitized wastewater treatment solids that have nutrient value for crops. There is no discharge to surface waters. The application rates will be in accordance with the agronomic nutrient needs of the crop and will be in accordance with an approved nutrient management plan and the Virginia Pollution Abatement Permit Regulation Part IX-Biosolids Program 9VAC25-32-10.

Your name appears as an adjacent property owner, provided to the DEQ by the City of Chesapeake Commissioner of Revenue/Tax Assessor office in accordance with § 62.1-44.15:4.D. Enclosed is the appropriate map or maps for the specific location(s) under consideration which the tax records show may be adjacent to your property and a list of the proposed land application sites.

The DEQ has reviewed the permit reissuance application and will include the additional sites in the permit following a 30 day public comment period. This public comment period will run for 30 consecutive days from the date the notice first appears in the newspaper (The Virginian Pilot). In the meantime, the public is welcome to review the permit reissuance application at our Virginia Beach Office during normal business hours (8:30 am – 4:30 pm Monday – Friday).

Please do not hesitate to contact me at this office (757) 518-2008 or by email **deanna.austin@deq.virginia.gov** with questions concerning this notification.

Sincerely,

Deanna Dodson Austin
Environmental Engineer Senior

cc: DEQ File-ECM
HRSD

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
5636 Southern Boulevard, Virginia Beach, Virginia 23462
(757) 518-2000 Fax (757) 518-2009
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The Department of Environmental Quality (DEQ) has received a request from Hampton Roads Sanitation District (HRSD) for the addition of 379 acres of new land application sites to be listed in the Atlantic VPDES permit. Biosolids will be land applied. Biosolids are high quality, sanitized wastewater treatment solids that have nutrient value for crops. There is no discharge to surface waters. The application rates will be in accordance with the agronomic nutrient needs of the crop and will be in accordance with an approved nutrient management plan and the Virginia Pollution Abatement Permit Regulation Part IX-Biosolids Program 9VAC25-32-10.

Your name appears as an adjacent property owner, provided to the DEQ by the City of Virginia Beach Commissioner of Revenue/Tax Assessor office in accordance with § 62.1-44.15:4.D. Enclosed is the appropriate map or maps for the specific location(s) under consideration which the tax records show may be adjacent to your property and a list of the proposed land application sites.

The DEQ has reviewed the permit reissuance application and will include the additional sites in the permit following a 30 day public comment period. This public comment period will run for 30 consecutive days from the date the notice first appears in the newspaper (The Virginian Pilot). In the meantime, the public is welcome to review the permit reissuance application at our Virginia Beach Office during normal business hours (8:30 am – 4:30 pm Monday – Friday).

Please do not hesitate to contact me at this office (757) 518-2008 or by email **deanna.austin@deq.virginia.gov** with questions concerning this notification.

Sincerely,

Deanna Dodson Austin
Environmental Engineer Senior

cc: DEQ File-ECM
HRSD

Austin,Deanna

From: Austin,Deanna
Sent: Friday, June 29, 2007 10:31 AM
To: Butler,Kimberly; Skiles, Keith (VDH); Horne, Daniel (VDH)
Subject: HRSD Chlorine Conditions

Tracking:

Recipient	Read
Butler,Kimberly	Read: 6/29/2007 10:49 AM
Skiles, Keith (VDH)	
Horne, Daniel (VDH)	

After much discussion with Kim and HRSD and seeing both Dan and Keith's comments. I propose the following condition.

ADDITIONAL TOTAL RESIDUAL CHLORINE (TRC) LIMITATIONS AND MONITORING REQUIREMENTS

1. a. The permittee shall monitor the TRC at the outlet of the chlorine contact tank, prior to dechlorination, every two hours by grab sample.

   b. No more than 36 of all samples taken after the chlorine contact tank, prior to dechlorination, shall be less than 1.5 mg/l for any one calendar month.

   c. The facility shall operate the chlorination facilities in a manner, which will ensure continuous disinfection. The permittee shall notify the DEQ in the event TRC sample collected prior to dechlorination is less than 0.6 mg/l for 3 or more consecutive readings or the TRC sample collected is less than 0.1 mg/l. Reporting will be conducted in accordance with Part II.H. of the permit.

After talking with Kim it appears that the biggest concern is to know when there is a total loss of disinfection.
Keep in mind that not all HRSD plants have 0.6 mg/L in their permits. Some of the plants have submitted studies in the past and have had this number lowered in previous permit cycles.

If any of you have any comments about the newly proposed condition, please let me know by Tuesday (7/3). If there are no significant comments, I'll proceed with the above language. I think the language above gets us what we want which is to know when there is a loss of chlorination. Thanks!

Deanna Austin
DEQ-TRO Water Permits
5636 Southern Blvd
Virginia Beach, VA 23462
Phone: 757-518-2008
Fax: 757-518-2009

Austin,Deanna

From: Skiles, Keith (VDH)
Sent: Friday, June 29, 2007 9:24 AM
To: Austin,Deanna
Subject: RE: [Fwd: HRSD Chlorine Special condition]

Deanna,

Thanks for letting me know what you are working on. This is getting into some detail though that we would normally rely on the engineering side to answer for us. It probably goes without saying that we would certainly be concerned if either effluent quality or disinfection dosage falls below what is considered adequate. We just aren't in a position to specify what those levels are without some consultation. If as Dan suggests there is an existing agreement between VDH and DEQ that establishes 0.6 as that level for chlorine then we would have no reason to change it.

In the not too distant future, FDA is likely to press us (in Shellfish Sanitation) to develop management plans to deal with the performance of sewage treatment facilities that have outfalls in shellfish waters. We currently have shellfish closures based on plants operating properly, and when we are notified of a failure we make a decision about whether to close additional waters and how much to close on a case-by-case basis. This would basically make us decide what a likely failure would be and establish what the closure would be before a failure happened. As you are going through questions like these, letting us know what is generally accepted as a minimum performance standards may be helpful for us in developing these plans.

As far as the and/or question, it would seem to me that it should be "or". If not, then a computed TRC of < 1.0 would allow a plant to skip reporting even if the actual measurement was < 0.6, which to me does not sound like a good idea.

Keith

-----Original Message-----
From: Austin,Deanna [mailto:ddaustin@deq.virginia.gov]
Sent: Tuesday, June 26, 2007 7:48 AM
To: Skiles, Keith (VDH)
Subject: FW: [Fwd: HRSD Chlorine Special condition]

Keith,
Dan suggested that I include you on the chlorine discussion below concerning HRSD facilities.

Instead of the "and/or" issue below, HRSD is proposing that we include a condition that they report to us when they have 4 consecutive TRC readings that fall below a certain level. In the case of Ches-Liz we would keep that level at 0.6 mg/l. Is this something that you would find acceptable? Also, please let me know what you think about the and/or issue. I will send Dan an email about the 4 consecutive TRC readings to find out what he thinks as well.

Thanks,
Deanna
-----Original Message-----
From: Horne, Daniel (VDH)
Sent: Friday, June 22, 2007 10:13 AM
To: Austin,Deanna
Subject: [Fwd: HRSD Chlorine Special condition]

Deanna -

I don't recall the discussion from back in 2004, but based on what I see here, I would suggest that the word NOT be changed from "or" to "and" - it should remains as "or". If I remember correctly, the 0.6 mg/L was chosen because that was the lower limit from the chlorine reduction study performed a number of years ago - I believe that the agreement between VDH and DEQ at that time was that having a residual of below 0.6 mg/L would

suggest that the effluent was not properly disinfected.

Back in 2004, the Office of Drinking Water was acting as the sole voice for VDH - we collected comments from Shellfish Sanitation and the Local Health Departments, and incorporated those into our comments. That process has now changed, and ODW only speaks to potential or actual impacts to public water supply sources. DSS is contacted by DEQ and provides comments directly to DEQ on impacts to shellfish waters. I would suggest that you also check with DSS to see if they would have any concerns.

Dan H.

-------- Original Message --------
Subject:HRSD Chlorine Special condition
Date: Thu, 21 Jun 2007 11:00:10 -0400
From: Austin,Deanna <ddaustin@deq.virginia.gov>
To: Horne, Daniel (VDH) <Daniel.Horne@vdh.virginia.gov>

Dan,
I am currently working on the reissuance of the HRSD permits that was first started in 2004. Because of some litigation, there was a hold up but we are now able to process. Clyde was working on these but is out for military leave. When I was going through his file I ran across an email from you dated 3/16/04 concerning disinfection reporting. Clyde had written you on 3/1/04 stating that he was planning on changing the following condition in red. The change purposed would change the bold OR to an AND.

ADDITIONAL TOTAL RESIDUAL CHLORINE (TRC) LIMITATIONS AND MONITORING REQUIREMENTS

1. a. The permittee shall monitor the TRC at the outlet of the chlorine contact tank, prior to dechlorination, every two hours by grab sample.

b. No more than 36 of all samples taken after the chlorine contact tank, prior to dechlorination, shall be less than 1.5 mg/l for any one calendar month.

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In the email back and forth between you and Clyde there seems to be some misinformation of numbers. The condition above is what is currently in their permit and the change purposed would just be the change to an "and". I have spoke to Kim Butler about this change and she feels that it may cause an issue in that they would not have to report when they are below 0.6 mg/l. I wanted to get a response from you again since it appears that it was not really addressed during the first development of a draft for this permit.

Also, I should note that HRSD-Atlantic has already been issued with an "AND" because I didn't realize that Clyde had made that change in the permit before he went on military leave. At least that plant discharges to the ocean so I'm not sure if it is any benefit in that case to try to do a modification.

Please let me know what you think. If you need a copy of the email between you and Clyde I can scan it in and email it to you.

Deanna Austin
DEQ-TRO Water Permits
5636 Southern Blvd
Virginia Beach, VA 23462
Phone: 757-518-2008
Fax: 757-518-2009

Austin,Deanna

From: Austin,Deanna
Sent: Tuesday, June 26, 2007 7:51 AM
To: Horne, Daniel (VDH)
Subject: RE: [Fwd: HRSD Chlorine Special condition]

Dan,
I have emailed this info along to Keith Skiles. In addition to the emails below, I have also sent a new HRSD proposal to replace the and/or issue. HRSD proposes reporting when they have 4 consecutive TRC values below the level set in each permit. In the case of Ches-Liz, it would be 0.6 mg/L.

Kim Butler and I have been talking and we may propose that they report to us when the TRC level is <0.1 at any given reading.

Let me know what you think. Thanks.

Deanna

-----Original Message-----
From: Horne, Daniel (VDH)
Sent: Friday, June 22, 2007 10:13 AM
To: Austin,Deanna
Subject: [Fwd: HRSD Chlorine Special condition]

Deanna -

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Dan H.

-------- Original Message --------
Subject:HRSD Chlorine Special condition
Date: Thu, 21 Jun 2007 11:00:10 -0400
From: Austin,Deanna <ddaustin@deq.virginia.gov>
To: Horne, Daniel (VDH) <Daniel.Horne@vdh.virginia.gov>

Dan,
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Please let me know what you think. If you need a copy of the email between you and Clyde I can scan it in and email it to you.

Deanna Austin
DEQ-TRO Water Permits
5636 Southern Blvd
Virginia Beach, VA 23462
Phone: 757-518-2008
Fax: 757-518-2009

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

January 24, 2008

Ellen Gilinsky, Ph.D., Director
Division of Water Quality Programs
Virginia Department of Environmental Quality
P.O. Box 1105
Richmond, VA 23218

Dear Dr. Gilinsky:

Over the past few months, staff at the U.S. Environmental Protection Agency, Region III (EPA) and the Virginia Department of Environmental Quality (VADEQ) have been discussing the need for effluent limitations and monitoring for bacteria in all Virginia Pollutant Discharge Elimination System (VPDES) permits for domestic wastewater treatment facilities (WWTFs), including those that use chlorination for disinfection. EPA has provided comments on various VPDES permits submitted for review, including several recently submitted for the Hampton Roads Sanitation District.

We appreciate VADEQ's efforts to address EPA's comments and are writing to reiterate our position that bacteria limits must be included in all permits. We recognize that Virginia's VPDES Permit Manual includes procedures to allow the use of Total Residual Chlorine as a surrogate for bacteria, with corresponding demonstration studies. However, from time to time, various issues are raised nationally, including through our most recent Permit Quality Review, which cause us to reevaluate Regional and state practices. It has come to our attention that Virginia is one of only two states nationally which do not currently require bacteria effluent limits and monitoring in domestic WWTFs. In addition, Virginia's Final 2006 305(b)/303(d) Water Quality Assessment Integrated Report states the leading cause of impairment of designated uses in Virginia's rivers and streams is violation of the bacteria standards. Therefore, we feel that there is justification to ask that the existing practice and procedures be changed. Virginia also adopted revised water quality standards for *Enterococcus and E. coli* in 2003 which will come into consideration as permits are reissued.

Under 40 C.F.R. § 122.44, NPDES permits are required to include not only technology-based effluent limits, but also any more stringent requirements necessary to "[a]chieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality." 40 C.F.R. § 122.44(d)(1). Under this provision, limitations must control all pollutants that "are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." 40 C.F.R. § 122.44(d)(1)(i). Pursuant to 40 C.F.R.

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§122.44(d)(1)(iii), if it is determined "that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient concentration of a State numeric criteria within a State water quality standard for an individual pollutant, the permit must contain effluent limits for that pollutant."

We would like to reiterate that based on the information currently available, EPA does not disagree with VADEQ's use of chlorination as a means of disinfection. We believe, as you do, that chlorination can be an effective means of eliminating bacteria from domestic wastewater. Our concern involves the use of a minimum chlorine residual limit as a "surrogate" for bacteria effluent limits and monitoring in assessing whether bacteria has been reduced to a level sufficient to ensure compliance with the numeric criteria for bacteria defined in Virginia's water quality standards. It is EPA's determination, after research and consultation with EPA Headquarters legal and technical staff, that the CWA and federal regulations do not allow the use of such an approach. EPA's position is clearly spelled out below in the Preamble to 40 CFR 122.44.

"Today's regulations do not allow the permitting authority to use indicator parameters under paragraphs (d)(1)(iii) and (iv). Indicator parameters may not be used to develop effluent limitations under these paragraphs because, under these paragraphs, the state has promulgated a numeric criterion for the pollutant of concern. Such a numeric criterion represents a state's affirmative decision with respect to the maximum allowable ambient concentration for the pollutant. If paragraphs (d)(1)(iii) and (iv) provided for the use of indicator parameters, such provisions could frustrate the state's efforts to promulgate and implement water quality standards. EPA is limiting the use of indicator parameters to paragraph (d)(1)(vi) because this paragraph is intended as an interim measure employed in the absence of a state numeric criterion for the pollutant of concern, and because EPA seeks to allow the states flexibility to interpret their narrative water quality criteria." 54 Fed. Reg. 23868, 23878 (June 2, 1989).

EPA and the Commonwealth of Virginia share common goals of ensuring compliance with all federal and State NPDES requirements and ensuring that Virginia water quality standards are met. With those ends in mind, EPA appreciates VADEQ's willingness to work toward a mutually satisfactory solution. We also appreciate that VADEQ staff have been working with us already to incorporate these requirements into permits. We understand that implementation would be more of a concern with smaller facilities. VADEQ could evaluate the use of compliance schedules as appropriate. If there are any additional implementation questions, please have your staff contact Evelyn S. MacKnight, Chief, NPDES Permits Branch, at 215-814-5717. Please feel free to contact me if you wish to discuss this further.

Sincerely,

for Jon M. Capacasa, Director
Water Protection Division

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McConathy,James

From: Daub,Elleanore
Sent: Wednesday, December 12, 2007 3:26 PM
To: McConathy,James
Subject: FW: HRSD Permits

The bacteria comment from EPA on the HRSD approvals.

-----Original Message-----
From: Smith.Mark@epamail.epa.gov [mailto:Smith.Mark@epamail.epa.gov]
Sent: Wednesday, December 12, 2007 2:18 PM
To: Daub,Elleanore
Cc: MacKnight.Evelyn@epamail.epa.gov
Subject: Fw: HRSD Permits

Hi Elleanore, I forgot to put a comment on this email. We would like to see the human health bacteria indicator (whichever one is appropriate E.coli or enterococci) as a monitored permit limit along with the fecal for shellfish in these types of permits. Thanks
----- Forwarded by Mark Smith/R3/USEPA/US on 12/12/2007 01:46 PM -----

Mark Smith/R3/USEPA/US		To
	emdaub@deq.virginia.gov	
12/12/2007 01:09 PM		cc
	Evelyn MacKnight/R3/USEPA/US@EPA	
		Subject
	HRSD Permits	

Hello Elleanore, we received five HRSD permits submitted for review from your Tidewater Regional Office on November 20, 2007. Based on our review, we have no objection to the issuance of the following permits: VA0081230-HRSD Army Base STP, VA0081281-HRSD Virginia Initiative Plant, VA0081256-HRSD Boat Harbor STP, VA0081272-James River STP and VA0081302-Williamsburg STP. Thanks

ATTACHMENT 7

SPECIAL CONDITIONS RATIONALE

VPDES PERMIT PROGRAM
LIST OF SPECIAL CONDITIONS RATIONALE

Name of Condition:

B. Additional Total Residual Chlorine (TRC) Limitations and Monitoring Requirements

Rationale: Required by Water Quality Standards, 9VAC 25-260-170, Fecal coliform bacteria; other waters. Also, 40 CFR 122.41(e) requires the permittee, at all times, to properly operate and maintain all facilities and systems of treatment in order to comply with the permit. This ensures proper operation of chlorination equipment to maintain adequate disinfection.

C. OTHER REQUIREMENTS OR SPECIAL CONDITIONS

1.a. Sludge Reopener

Rationale: Required by the VPDES Permit Regulation, 9 VAC 25-31-220 C., and 40 CFR 122.44 (c)(4), which note that all permits for domestic sewage treatment plants (including sludge-only facilities) include any applicable standard for sewage sludge use or disposal promulgated under Section 405(d) of the Clean Water Act.

1.b. Water Quality Standards Reopener

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-220 D requires effluent limitations to be established which will contribute to the attainment or maintenance of water quality criteria.

1.c. Effluent Monitoring Reduction and Frequency Reopener

Rationale: This condition was created at the request of HRSD to allow for permit modification once 3 years of plant data from the upgraded 54 MGD plant is obtained. This will be at or around April 2013. Once the data is submitted DEQ will review the data based upon the VPDES manual for reduction in monitoring frequency for BOD, TSS and Fecal Coliform. Reduction in monitoring frequency may be made depending upon the data results. If a reduction in monitoring frequency can be made, a public notice will be required by the facility as this modification will be a major modification due to the possibility of less stringent monitoring. This condition only applies to BOD, TSS and Fecal Coliform.

2. Licensed Operator Requirement

Rationale: The Permit Regulation, 9 VAC 25-31-200 D and Code of Virginia 54.1-2300 et. seq., Rules and Regulations for Waterworks and Wastewater Works Operators (18 VAC 160-20-10 et seq.) requires licensure of operators.

3. Reliability Class

Rationale: Required by Sewage Collection and Treatment Regulations, 12 VAC 5-581-20 and 120 for all municipal facilities.

4. CTC, CTO and O & M Manual Requirements

Rationale: Required by the State Water Control Law, Section 62.1-44.19; the Sewage Collection and Treatment Regulations (12 VAC 5-581 et seq); Section

401 of the Clean Water Act; 40 CFR 122.41(e); and the VPDES Permit Regulation (9 VAC-25-31-190E).

5. 95% Design Capacity Notification

Rationale: Required by the VPDES Permit Regulation, 9 VAC 25-31-200 B.2. for all POTW and PVOTW permits. Best professional judgment is used to apply this condition to other (private) municipal treatment facilities.

6. Quantification Levels Under Part I.A.

Rationale: States are authorized to establish monitoring methods and procedures to compile and analyze data on water quality, as per 40 CFR part 130, Water Quality Planning and Management, subpart 130.4. Section b. of the special condition defines QL and is included per BPJ to clarify the difference between QL and MDL.

7. Compliance Reporting Under Part I.A.

Rationale: Defines reporting requirements for toxic parameters and some conventional parameters with quantification levels to ensure consistent, accurate reporting on submitted reports.

8. Indirect Dischargers

Rationale: Required by VPDES Permit Regulation, 9 VAC 25-31-200 B.1. for POTWs and PVOTWs that receive waste from someone other than the owner of the treatment works.

D. SLUDGE SPECIAL CONDITION

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-420, and 40 CFR 503.1 specify the purpose and applicability for sludge management plans. The VPDES Permit Regulation, 9 VAC 25-31-100 J.4., also sets forth certain detailed information which must be included in a sludge management plan. The VPDES sewage sludge permit application form and its attachments constitute the sludge management plan and will be considered for approval with the VPDES permit. In addition, the Biosolids Use Regulation, 12 VAC 5-585-330 and 340, specifies the general purpose and control requirements for an O&M manual in order to facilitate proper O&M of the facilities to meet the requirements of the regulation.

E. PRETREATMENT

Rationale: The permit regulation, 9 VAC 25-31-10 et seq., Part VII, establishes the legal requirements for State, local government and industry to implement National Pretreatment Standards. The Pretreatment Standards are implemented to prevent POTW plant pass through, interference, violation of water quality standards or contamination of sewage sludge. The regulation requires POTWs with a total design flow greater than 5 MGD with significant or categorical industrial input to establish a Pretreatment Program. The regulation also may apply to POTWs with design flows less than 5 MGD if circumstances warrant control of industrial discharges.

F. TOXICS MANAGENENT PROGRAM (TMP)

Rationale: To determine the need for pollutant specific and/or whole effluent toxicity limits as may be required by the VPDES Permit Regulation, 9 VAC 25-31-220 D. and 40 CFR 122.44 (d). See Attachment 9 of this fact sheet for additional justification.

ATTACHMENT 8

TOXICS MONITORING/TOXICS REDUCTION/ WET LIMIT RATIONALE

MEMORANDUM

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard Virginia Beach, VA 23462

SUBJECT: Toxics Management Program (TMP) testing for HRSD-Atlantic Plant (VA0081248)

TO: Permit Fact Sheet

FROM: Deanna Austin DOA

DATE: 9/14/11

COPIES:

HRSD-Atlantic plant is a major municipal discharger (design flow 54 MGD) of treated domestic sewage. Discharge from outfall 001 to the Atlantic Ocean will continue to be monitoring for toxicity during this permit term.

During the last permit term, the facility monitored for the both *Americamysis bahia* and *Cyprinodon variegatus*. The data is presented below. Acute monitoring was performed since there is no reason to believe that there is any variation in discharge characteristics throughout the 24 hour period. This was carried forward from the previous permit term.

During the plant upgrade to 54 MGD new modeling was presented. The chronic dilution factor then used for analysis was 741:1. The HydroQual method (UM Model) was used to determine the acute near field dilution factor of 109:1. Although the chronic and acute dilution factors were not approved by the DEQ central office staff, the TRO permit writer (Clyde Gantt) gave approval for the factors by letter dated 1/29/04. The following calculation shows how the TU_a was derived using the acute dilution factor determined by HRSD.

Acute dilution = $100/IWC_a$

109= 100/IWCa

100/109 = 0.92% IWC_a

LC_{50}= IWC/Acute Water Quality Instream criterion

LC_{50}= 0.92/0.3 = 3.1%

$TU_a = 1/LC_{50} \times 100$

1/3.0 x 100 = 33.33

TU_a = 33.3

The following table details the results of the TMP tests for the last permit term. Since all data met the LC_{50}, a WET limit is not needed at this time and annual TMP testing should continue.

DESCRIPT	SPECIES	SAMPLEDT	LC50	SURVIVAL	TU	TESTCOM	LAB
Annual Acute	A.b.	14-Feb-06	11.2	100		100% survival in 11.2.% effluent	HRSD
1st Annual Acute	A.b.	07-Aug-07	11.2	95	8.9	95% survival in 11.2% effluent TUa <8.9	HRSD

2nd Annual Acute	A.b.	01-Apr-08	11.2	95	8.9	95% survival in 11.2% effluent TUa <8.9	HRSD
3rd Annual Acute	A.b.	10-Feb-09	11.2	100	8.9	100% survival in 11.2% effluent TUa <8.9	HRSD
4th Annual Acute	A.b.	11-Aug-10	11.2	100	8.9	100% survival in 11.2% effluent TUa <8.9	HRSD
Annual Acute	C.v.	14-Feb-06	11.2	100		100% survival in 11.2.% effluent	HRSD
1st Annual Acute	C.v.	07-Aug-07	11.2	100	8.9	100% survival in 11.2% effluent TUa <8.9	HRSD
2nd Annual Acute	C.v.	01-Apr-08	11.2	100	8.9	100% survival in 11.2% effluent TUa <8.9	HRSD
3rd Annual Acute	C.v.	10-Feb-09	11.2	100	8.9	100% survival in 11.2% effluent TUa <8.9	HRSD
4th Annual Acute	C.v.	11-Aug-10	11.2	100	8.9	100% survival in 11.2% effluent TUa <8.9	HRSD

C.v. - *Cyprinodon variegatus*
A.b. - *Americamysis bahia*

The following TMP language is recommended for the reissuance of the HRSD Atlantic permit (VA0081248).

F. TOXICS MANAGEMENT PROGRAM

1. Biological Monitoring

a. In accordance with the schedule in 2. below, the permittee shall conduct annual acute toxicity tests for the duration of the permit. The permittee shall collect 24-hour flow-proportioned composite samples of final effluent from outfall 001 in accordance with Part 1.A. of this permit. The acute tests to use are:

48 Hour Static Acute test using Americamysis bahia and
48 Hour Static Acute test using Cyprinodon variegatus

These acute tests shall be performed with a minimum of 5 dilutions, derived geometrically, for the calculation of a valid LC_{50}. Express the results as TU_a (Acute Toxic Units) by dividing $100/ LC_{50}$ for reporting. Both species should be analyzed at the same time from the 24-hour flow-proportioned composite sample. Toxicity samples shall be taken at the same time as the other chemical parameter monitoring listed in Part I.A. of this permit for outfall 001.

Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.

b. The permittee may provide additional samples to address data variability during the period of initial data generation. These data shall be reported and may be included in the evaluation of the effluent toxicity. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.

c. The test dilutions shall be able to determine compliance with the following endpoints:

(1) Acute LC_{50} of $\geq 3\%$ equivalent to a TU_a of ≤ 33

d. All applicable data will be evaluated for reasonable potential at the conclusion of the test period. The data may be evaluated sooner if requested by the permittee, or if toxicity has been

noted. Should evaluation of the data indicate that a limit is needed, a WET limit and compliance schedule will be required and the toxicity tests of F.1.a. may be discontinued. Permit specific limits in lieu of a WET limit may be added, should it be demonstrated that toxicity is due to specific parameters. The pollutant specific limits must control the toxicity of the effluent.

2. Reporting Schedule

The permittee shall report the results and supply **one** complete copy of the toxicity test reports to the Tidewater Regional Office in accordance with the schedule below. A complete report must contain a copy of all laboratory benchsheets, certificates of analysis, and all chains of custody.

(a)	**Conduct first annual TMP test for outfall 001 using Americamysis bahia and Cyprinodon variegatus**	**By December 31, 2012**
(b)	**Submit results of all biological tests**	**Within 60 days of the sample date and no later than January 10, 2013**
(c)	**Conduct subsequent annual TMP tests for outfall 001 using Americamysis bahia and Cyprinodon variegatus**	**By December 31, 2013, 2014, 2015, and 2016**
(d)	**Submit subsequent annual biological tests**	**Within 60 days of the sample date and no later than January 10, 2014, 2015, 2016 and 2017**

ATTACHMENT 9

SLUDGE DISPOSAL PLAN

FACILITY NAME: Atlantic STP **VPDES PERMIT NUMBER:** VA0081248

VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM

SCREENING INFORMATION

This application is divided into sections. Sections A pertain to all applicants. The applicability of Sections B, C and D depend on your facility's sewage sludge use or disposal practices. The information provided on this page will help you determine which sections to fill out.

1. All applicants must complete Section A (General Information).

2. Will this facility generate sewage sludge? X Yes __No

   Will this facility derive a material from sewage sludge? X Yes __No

   If you answered Yes to either, complete Section B (Generation Of Sewage Sludge Or Preparation Of A Material Derived From Sewage Sludge).

3. Will this facility apply sewage sludge to the land? X Yes __No

   Will sewage sludge from this facility be applied to the land? X Yes __No

   If you answered No to both questions above, skip Section C.

   If you answered Yes to either, answer the following three questions:

   a. Will the sewage sludge from this facility meet the ceiling concentrations, pollutant concentrations, Class A pathogen reduction requirements and one of the vector attraction reduction requirements 1-8, as identified in the instructions?
   __Yes X No

   b. Will sewage sludge from this facility be placed in a bag or other container for sale or give-away for application to the land? __Yes X No

   c. Will sewage sludge from this facility be sent to another facility for treatment or blending? __Yes X No

   If you answered No to all three, complete Section C (Land Application Of Bulk Sewage Sludge).

   If you answered Yes to a, b or c, skip Section C.

4. Do you own or operate a surface disposal site? __Yes X No

   If Yes, complete Section D (Surface Disposal).

SECTION A. GENERAL INFORMATION

All applicants must complete this section.

1. Facility Information.
   a. Facility name: Atlantic STP
   b. Contact person: James Pletl
      Title: Chief of Technical Services Division
      Phone: (757)460-4246
   c. Mailing address:
      Street or P.O. Box: 1436 Air Rail Avenue
      City or Town: Virginia Beach State: VA Zip: 23455
   d. Facility location:
      Street or Route #: 645 Firefall Drive
      County:
      City or Town: Virginia Beach State: VA Zip: 23454
   e. Is this facility a Class I sludge management facility? X Yes __No
   f. Facility design flow rate: 54 mgd
   g. Total population served: 348,945
   h. Indicate the type of facility:
      X Publicly owned treatment works (POTW)
      ___ Privately owned treatment works
      ___ Federally owned treatment works
      ___ Blending or treatment operation
      ___ Surface disposal site
      ___ Other (describe):

2. Applicant Information. If the applicant is different from the above, provide the following:
   a. Applicant name: Hampton Roads Sanitation District
   b. Mailing address:
      Street or P.O. Box: 1436 Air Rail Avenue
      City or Town: Virginia Beach State: VA Zip: 23455
   c. Contact person: James Pletl
      Title: Chief of Technical Services Division
      Phone: (757)460-4246
   d. Is the applicant the owner or operator (or both) of this facility?
      X owner X operator
   e. Should correspondence regarding this permit be directed to the facility or the applicant? (Check one)
      _____ facility X applicant

3. Permit Information.
   a. Facility's VPDES permit number (if applicable): VA0081248
   b. List on this form or an attachment, all other federal, state or local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:

Permit Number:	Type of Permit:
VAD980720353	RCRA
60959	DEQ-Air Division

4. Indian Country. Does any generation, treatment, storage, application to land or disposal of sewage sludge from this facility occur in Indian Country? __Yes X No If yes, describe:

5. Topographic Map. Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information. Maps should include the area one mile beyond all property boundaries of the facility:
   a. Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed.
   b. Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries.

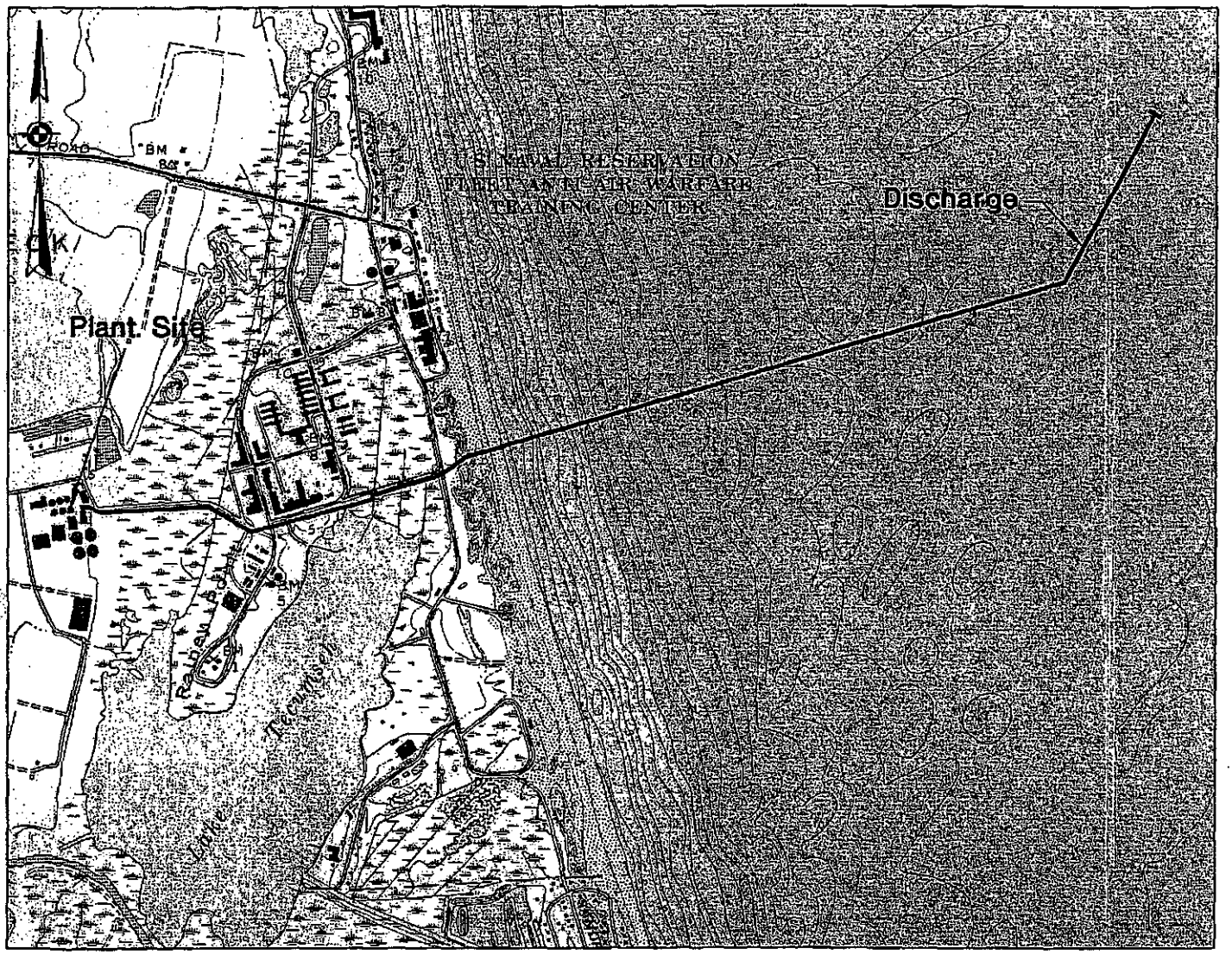
6. Line Drawing. Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction.

7. Contractor Information. Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? _X_ Yes ___No
   If yes, provide the following for each contractor (attach additional pages if necessary).
   Name: Ag Nutrients, Inc.
   Mailing address:
   Street or P.O. Box: P.O. Box 57008
   City or Town: Virginia Beach State: VA Zip: 23457
   Phone: (757)426-6824
   Contractor's Federal, State or Local Permit Number(s) applicable to this facility's sewage sludge:
   HRSD VPDES VA0081248
   If the contractor is responsible for the use and/or disposal of the sewage sludge, provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s). Contractor is responsible for maintaining storage pad area. Contractor conducts applicable soils monitoring to prospective land application sites, calculates appropriate nutrient application rates, and land applies biosolids in accordance with all state and federal regulations. Contractor provides biosolids nutrient information to farmer. HRSD is responsible for providing contractor with biosolids that meet Class B pathogen requirements, vector attraction requirements, and Table III pollutant concentrations. HRSD monitors the land application operations to ensure all site management requirements are met. Land application sites are permitted under HRSD VPDES VA0081248.

8. Pollutant Concentrations. Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants which limits in sewage sludge have been established in 9 VAC 25-31-10 et seq. for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old. **See attached sheet.**

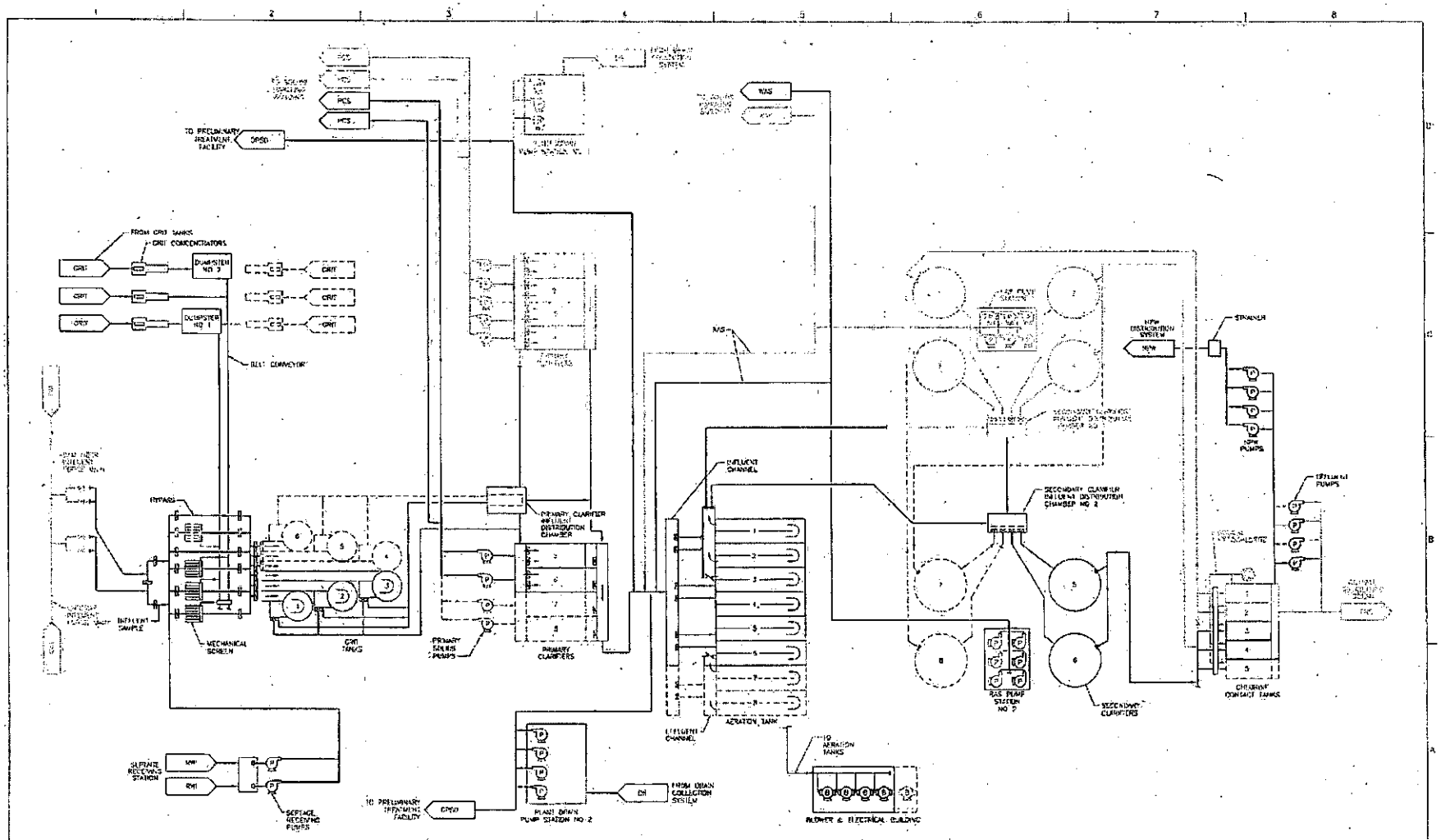
POLLUTANT	CONCENTRATION (mg/kg dry weight)	SAMPLE DATE	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
Arsenic				
Cadmium				
Chromium				
Copper				
Lead				
Mercury				
Molybdenum				
Nickel				
Selenium				
Zinc				

5.



Location Map
for
Atlantic TP

June 2003 Scale: 1"=2000' USGS Map Reference



HDR

NO.	DATE	DESCRIPTION
C	5/07	ISSUED FOR CONSTRUCTION
A	11/06	ISSUED FOR BID

PROJECT MANAGER M. MOORE
DESIGNED BY C. JACOBS
DRAWN BY K. CHATTLEMAIN
CHECKED BY
PROJECT NUMBER 21766

COMMONWEALTH OF VIRGINIA
WILLIAM S. MOORE
3/22/07

HAMPTON ROADS SANITATION DISTRICT
VIRGINIA BEACH, VIRGINIA

ATLANTIC TREATMENT PLANT
EXPANSION PHASE I, CONTRACT C

PROCESS FLOW DIAGRAM 1

FILENAME 900-11.DWG
SCALE NOT TO SCALE
DRAWING NUMBER G-11
SHEET 11 OF 825

Atlantic STP Biosolids Data VA0081248

Section 8.A - Pollutant Concentrations

Parameter	Selenium	Arsenic	Molybdenum	Zinc	Lead	Nickel	Mercury	Copper	Cadmium
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
5/5/10	6	<14	13	1600	43	14	1.2	307	9
5/5/10	4	<12	11	1380	37	12	1.5	279	8
6/2/10	5	<14	12	1430	25	12	1.4	266	4
6/2/10	6	<13	11	1300	22	11	1.2	256	4
7/7/10	6	<13	12	1410	30	13	1.3	309	5
7/7/10	4	<13	9	1120	26	10	1.1	255	5
8/4/10	<3	<14	11	1390	29	14	0.7	87	5
8/4/10	3	<13	10	1350	32	13	0.4	314	6
9/1/10	6	<14	9	1370	34	14	1.5	357	4
9/1/10	4	<13	6	1040	28	11	1.2	291	3
10/6/10	6	<14	9	1460	34	14	1.3	353	<2.9
10/6/10	5	<14	8	1430	32	13	1.3	341	<2.8
11/3/10	6	<14	10	1460	30	13	0.9	327	<2.8
11/3/10	4	<14	9	1490	30	13	1.5	336	<2.8
12/2/10	6	<14	10	1520	31	14	1.2	355	3
1/6/11	6	<14	9	1790	30	14	1.0	354	5
2/3/11	3	<14	9	1470	27	12	1.2	351	4
3/3/11	5	<14	10	1460	21	15	0.8	304	6
4/6/11	5	<14	9	1570	23	15	1.1	317	<2.8
Method	6020A	6010C	6010C	6010C	6010C	6010C	7471B	6010C	6010C
Report Limit (ug/l)	2.5	20	4	4	5	4	0.1	4	2

All values are on a dry weight basis.

9. Certification. Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of the application you have completed and are submitting:

_X_ Section A (General Information)
_X_ Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)
_X_ Section C (Land Application of Bulk Sewage Sludge)
____ Section D (Surface Disposal)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title Edward G. Henifin, P.E. General Manager

Signature [signature] Date Signed 6/6/2011

Telephone number 757-460-4242

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

FACILITY NAME: Atlantic STP **VPDES PERMIT NUMBER:** VA0081248

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. Amount Generated On Site.
   Total dry metric tons per 365-day period generated at your facility: 2904 dry metric tons (2010 estimate)

2. Amount Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
   a. Facility name: HRSD Nansemond STP as an alternative backup plan
   b. Contact Person: James Pletl
      Title: Chief of Technical Services Division
      Phone (757)-460-4246
   c. Mailing address:
      Street or P.O. Box: 1436 Air Rail Avenue
      City or Town: Virginia Beach State: VA Zip: 23455
   d. Facility Address:
      (not P.O. Box)
   e. Total dry metric tons per 365-day period received from this facility: 0 in 2010 dry metric tons
   f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics: Solids are digested and dewatered to meet Class B pathogen requirement and the vector attraction requirements.

3. Treatment Provided at Your Facility.
   a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
      __Class A X Class B __Neither or unknown
   b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: Solids are digested between 15 days at 35 to 55 degrees Celsius and 60 days at 20 degrees Celsius
   c. Which vector attraction reduction option is met for the sewage sludge at your facility?
      X Option 1 (Minimum 38 percent reduction in volatile solids)
      __ Option 2 (Anaerobic process, with bench-scale demonstration)
      __ Option 3 (Aerobic process, with bench-scale demonstration)
      __ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
      __ Option 5 (Aerobic processes plus raised temperature)
      __ Option 6 (Raise pH to 12 and retain at 11.5)
      __ Option 7 (75 percent solids with no unstabilized solids)
      __ Option 8 (90 percent solids with unstabilized solids)
      __ None or unknown
   d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: The primary VAR option is VAR Option 1. If 38% reduction is not met, then biosolids are incorporated into the soil within 6 hours of application.
   e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above:

4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge). **Not applicable**
   (If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)
   a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land: _____ dry metric tons
   b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away?
      __Yes __No

5. Sale or Give-Away in a Bag or Other Container for Application to the Land. **Not applicable**

(Complete this question if you place sewage sludge in a bag or other container for sale or give-away prior to land application. Skip this question if sewage sludge is covered in Question 4.)

a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land: _____ dry metric tons

b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.

6. Shipment Off Site for Treatment or Blending. *Alternative Emergency Plan*

(Complete this question if sewage sludge from your facility is sent to another facility that provides treatment or blending. This question does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this question if the sewage sludge is covered in Questions 4 or 5. If you send sewage sludge to more than one facility, attach additional sheets as necessary.)

a. Receiving facility name: McGill Environmental Systems

b. Facility contact: Bob Broom
Title: Manager
Phone: 804-834-8820

c. Mailing address:
Street or P.O. Box: 5056 Beef Steak Road
City or Town: Waverly State: VA Zip: 23890

d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility: 0 dry metric tons

e. List, on this form or an attachment, the receiving facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the receiving facility's sewage sludge use or disposal practices:

Permit Number:	Type of Permit:
VDH BUR 154	Biosolids Use Facility Operation Permit

f. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility? X Yes ___No
Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?
X Class A ___Class B ___Neither or unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge: Aerated static pile composting which blends wood chips and wastewater treatment solids.

g. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge? X Yes ___No
Which vector attraction reduction option is met for the sewage sludge at the receiving facility?
___ Option 1 (Minimum 38 percent reduction in volatile solids)
___ Option 2 (Anaerobic process, with bench-scale demonstration)
___ Option 3 (Aerobic process, with bench-scale demonstration)
___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
X Option 5 (Aerobic processes plus raised temperature)
___ Option 6 (Raise pH to 12 and retain at 11.5)
___ Option 7 (75 percent solids with no unstabilized solids)
___ Option 8 (90 percent solids with unstabilized solids)
___ None unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge: Solids are treated in aerobic process for at least 14 days. During the time, the minimum temperature of the solids is higher than 40 degrees Celsius and the average temperature exceeds 45 degrees Celsius

h. Does the receiving facility provide any additional treatment or blending not identified in f or g above?
X Yes ___No
If yes, describe, on this form or another sheet of paper, the treatment processes not identified in f or g above: Compost is cured for approximately 30 days in windrows and turned at least 5 times per week. Wood chips are screened out of the final product before distribution.

i. If you answered yes to f., g or h above, attach a copy of any information you provide to the receiving facility to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.G.

6.1.

NOTICE AND NECESSARY INFORMATION (NANI)

Facility:	Atlantic Treatment Plant	
Biosolids Type:	Anaerobically Digested	
Monitoring Period:	From:	To:

A. Pathogen Reduction (40 CFR.503.32) – Indicate the level achieved:

Class B*

*Temperature between 35 degrees C to 55 degrees C (95 – 131 degrees F) at 15 days and 20 degrees C (68 degrees F) at 60 days.

Comments:

B. Vector Attraction Reductions (40 CFR.503.33) – Indicate the option performed:

- ☐ Option 1 Meet 38% reduction in volatile solids content
- ☐ Option 2 Demonstrate vector attraction reduction with additional anaerobic digestion in a bench-scale unit
- ☐ Option 3 Demonstrate vector attraction reduction with additional aerobic digestion in a bench-scale unit
- ☐ Option 4 Meet a specific oxygen uptake rate for aerobically digested biosolids
- ☐ Option 5 Compost processes at greater than 40°C for 14 days or longer.
- ☐ Option 6 Alkali addition under specified aconditions
- ☐ Option 7 Dry biosolids with unstabilized solids to at least 75 percent solids
- ☐ Option 8 Dry biosolids with unstabilized solids to at least 90 percent solids
- ☐ Option 9 Inject biosolids beneath the soil surface
- ☐ Option 10 Incorporate biosolids into the soil within 6 hours of application to or placement on the land

Comments:

C. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or these persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Official Title: Plant Manager	**Area Code and Telephone Number:**
Signature:	**Date Signed:**

j Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? _X_ Yes __No
If yes, provide a copy of all labels or notices that accompany the product being sold or given away.

k. Will the sewage sludge be transported to the receiving facility in a truck-mounted watertight tank normally used for such purposes? _X_ Yes ___ No. If no, provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility.
Show the haul route(s) on a location map or briefly describe the haul route below and indicate the days of the week and the times of the day sewage sludge will be transported. Truck would travel down Firefall Drive to Bold Ruler and turn left on Dam Neck Road. Turn right on General Booth Boulevard and then right on Birdneck Road. Take entrance ramp to 64W. Follow 64 until it becomes Route 58W. Take exit for 460W to Waverly. Turn left on Cabin Point Road and turn onto Beef Steak Road.

7. Land Application of Bulk Sewage Sludge.
(Complete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6; complete Question 7.b, c & d only if you are responsible for land application of sewage sludge.)

a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites: 2904 dry metric tons. 2010 estimate

b. Do you identify all land application sites in Section C of this application? ___Yes _X_No
If no, submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in accordance with the instructions).

c. Are any land application sites located in States other than Virginia? ___Yes _X_No
If yes, describe, on this form or on another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

d. Attach a copy of any information you provide to the owner or lease holder of the land application sites to comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples may be obtained in Appendix IV).

8. Surface Disposal. *Not applicable*
(Complete Question 8 if sewage sludge from your facility is placed on a surface disposal site.)

a. Total dry metric tons per 365-day period of sewage sludge from your facility placed on all surface disposal sites: _____ dry metric tons

b. Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?
___Yes ___No
If no, answer questions c - g for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one surface disposal site, attach additional pages as necessary.

c. Site name or number:

d. Contact person:
Title:
Phone: ( )
Contact is: ___Site Owner ___Site operator

e. Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

f. Total dry metric tons per 365-day period of sewage sludge from your facility placed on this surface disposal site: _____ dry metric tons

g. List, on this form or an attachment, the surface disposal site VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the sewage sludge use or disposal practices at the surface disposal site:

Permit Number:	Type of Permit:
_____	
_____	

Recycling That Grows, Naturally

Nutri-GREEN® COMPOST

LIMITED WARRANTY/DISCLAIMER

HRSD has analyzed Nutri-Green® Compost according to the requirements of the EPA, Virginia Department of Health (VDH) and the Virginia Department of Environmental Quality (DEQ). HRSD guarantees that Nutri-Green® Compost's trace metal concentrations are within the regulatory levels established for Exceptional Quality biosolids. In addition to the 2-2-0 guaranteed analysis, HRSD further guarantees that all Nutri-Green® Compost has been properly treated to reduce pathogens in accordance with EPA, VDH and DEQ requirements. Otherwise, HRSD makes no warranties, express or implied, regarding Nutri-Green® Compost.

THE USER HEREBY AGREES THAT THE IMPLIED WARRANTIES, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER WARRANTIES EXPRESS OR IMPLIED ARE EXCLUDED.

There is no implied warranty arising from course of dealing, course of performance or usage of trade. Further, and without limitation, there is no warranty express or implied as to the quality or productivity of any Nutri-Green® Compost, and HRSD is not responsible for crops, gardens or other vegetation damaged, injured or destroyed from its application and/or use. The user agrees to abide by these instructions. Any oral statements made by HRSD employees, agents and/or representatives do not constitute warranties and shall not be relied upon.

NUTRI-GREEN® COMPOST SHOULD BE STORED OUT OF REACH OF CHILDREN.

Nutri-Green® Compost is a product of

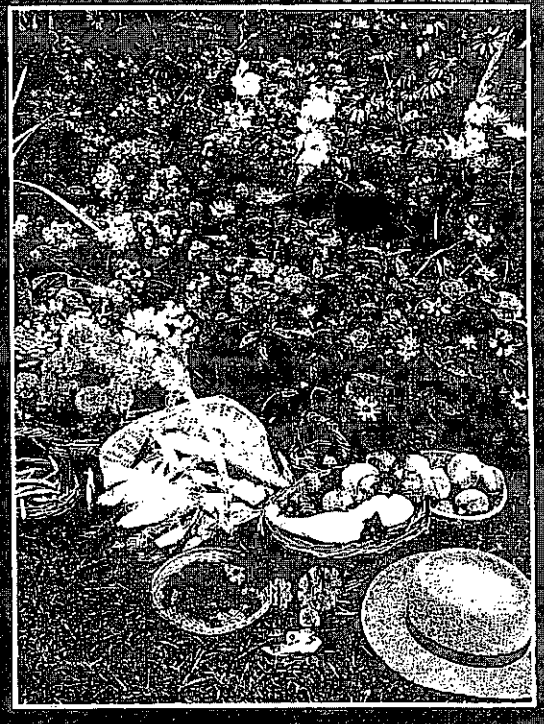
HAMPTON ROADS SANITATION DISTRICT

Cleaning Wastewater Every Day For A Better Bay

For more information please contact:
HRSD
P.O. Box 5911
Virginia Beach, VA 23471-0911
(757) 460-4276
www.hrsd.com

Recycling That Grows, Naturally

Nutri-GREEN® COMPOST



NATURAL SOIL CONDITIONER
100% WEED-FREE

LAWNS · TREES · SHRUBS · FLOWERS
BULBS · VEGETABLE GARDENS · HOUSE PLANTS

GUARANTEED ANALYSIS
2-2-0

Recycling That Grows. Naturally

Nutri-GREEN® COMPOST

HOW DOES NUTRI-GREEN® COMPOST WORK?

Valuable nutrients and organic matter from the Hampton Roads Sanitation District's wastewater treatment processes are recycled into Nutri-Green® Compost, which meets all requirements of the U. S. Environmental Protection Agency (EPA). As a beneficial soil conditioner and plant food supplement, Nutri-Green® promotes healthy plants and lawns by improving the soil in four important ways:

- Adds valuable organic matter to the soil
- Provides long-lasting essential plant nutrients
- Increases the ability of sandy soil to hold water and nutrients
- Improves the drainage and aeration of clay soil

GUARANTEED ANALYSIS

2-2-0

Total Nitrogen	2%
1.0% Water Insoluble Nitrogen	
Available Phosphoric Acid (P_2O_5)	2%
Soluble Potash (K_2O)	0%

TIPS FOR USING NUTRI-GREEN® COMPOST

(1 bag covers 12 square feet at a depth of 1 inch)

VEGETABLE GARDENS

Apply 1 inch Nutri-Green® Compost (8 bags per 100 square feet) and incorporate to a depth of 4 to 6 inches into existing soil. Plant and then water thoroughly.

NEW LAWNS

Apply 1 inch Nutri-Green® Compost (8 bags per 100 square feet) and till to a depth of 4 to 6 inches into existing soil. Seed or sod as desired and then water thoroughly.

SMALL BARE SPOTS

Apply 1/2 to 1 inch Nutri-Green® Compost (4 to 8 bags per 100 square feet) and incorporate to a depth of 3 to 4 inches into existing soil. Reseed or sod and then water thoroughly.

ESTABLISHED LAWNS

Aerate lawn and topdress with 1/4 to 1/2 inch Nutri-Green® Compost (2 to 4 bags per 100 square feet). Overseed if desired and then water thoroughly.

ORNAMENTAL TREES AND SHRUBS

To transplant, dig a hole approximately twice the size of the root ball. Mix 1/3 Nutri-Green® Compost with 2/3 of the existing soil and backfill. Plant and then water thoroughly.

FLOWERS, BULBS, AND BEDDING PLANTS

Apply 1 inch Nutri-Green® Compost (8 bags per 100 square feet) and incorporate to a depth of 4 to 6 inches into existing soil. Plant and then water thoroughly.

ESTABLISHED BED AREAS

Apply 1/2 inch Nutri-Green® Compost (4 bags per 100 square feet) and incorporate to a depth of 4 to 6 inches into existing soil. Water thoroughly.

HOUSE PLANTS

Mix 1 part Nutri-Green® Compost with 1 part perlite and 2 parts all-purpose potting soil. Plant and then water thoroughly.

7.c.

Land Application Plan

It is estimated that HRSD needs a minimum of 2,000 acres of agricultural land per year to sustain full-scale land application operations. The evaluation of potential land application sites is a continual process to ensure that an adequate amount of land is available for the project. The selection process for agricultural farm sites involves the evaluation of the physical, chemical, economic and social characteristics of each prospective site. Prospective farm sites will generally be located in the Virginia Beach, Chesapeake, Suffolk and Isle of Wight County areas. Per agreement with Chesapeake, HRSD will not land apply biosolids within 200 feet of the Northwest River so this is a factor that will be taken into account when evaluating prospective sites. Each prospective site will be inspected by HRSD and HRSD's land application contractor and evaluated for suitability. Sites with the following criteria will be avoided:

◊ Areas bordered by ponds, lakes, rivers and streams without appropriate buffer areas

◊ Wetlands and marshes

◊ Steep areas with sharp relief

◊ Undesirable geology (karst, fractured bedrock, rocky, etc.), nonarable land

◊ Undesirable soil conditions

◊ Environmentally sensitive areas such as floodplains or intermittent streams, ponds or endangered species habitat areas

The evaluation process involves the following steps:

- Initial site screening
  - ⇒ Evaluate regulatory requirements
  - ⇒ Evaluate public acceptance
  - ⇒ Evaluate land area requirement
- Field site survey
  - ⇒ Determine land use (current and future)
  - ⇒ Determine zoning compliance
  - ⇒ Evaluate aesthetics
- Field investigations and soil analysis
  - ⇒ Determine soil characteristics
  - ⇒ Determine hydrology
- Economic feasibility based on site location
  - ⇒ Evaluate transport feasibility
- Final site selection
  - ⇒ Prepare site information package

A site-specific information package will be prepared for each suitable site. Site packages will be submitted to the Department of Environmental Quality for review and approval 90 days prior to commencement of land application operations on the site. HRSD will also send a notification letter to the US Fish and Wildlife Service.

Site information packages will typically contain the following information

- Farm Acreage Summary

  A summary listing of the landowner; site number(s) - designated by the Soil Conservation Service, farmer tract number; field number(s); gross acres and net acres available for spreading, and the environmental sensitivity of the soils.

- Soil Information

  Information obtained from the Natural Resource Conservation Service – Web Soil Survey: Soil Map with legend and soils information, and a detailed description of each soil series.

- Landowner/Operator Agreements

  A signed agreement secured from the farm operator and landowner.

- Maps

  A map indicating the site location and its general vicinity, topographic map, field map with acreage prepared by local Farm Service Agency, tax map containing parcel information.

- Field Information

Including tract name, FSA number, location, fields, total acres and usable acres, slope class, hydrologic group, and a summary of soil test results, and field productivities for major crops and yield ranges.

- Soil Test Report

  Soil samples will be taken from all fields for laboratory analysis. Each field will be sampled by taking a number of cores and mixing them to form a representative composite sample. The cores will be obtained with a tube-type soil sampler (1 inch diameter) by first scraping away surface litter and then inserting the sampler to plant root depth, 8 inches for row crops, or 4 inches for pasture land. After mixing, the composite sample will be packaged and sent to a qualified laboratory for analysis. Soil samples will be evaluated for cation exchange capacity, pH, and plant nutrients, phosphorus and potassium. Results will be included in each site package.

7.d.

SMITHAG AND ENVIRONMENTAL

March 14, 2011

Scott Weatherly
412 Ballahack Road
Chesapeake, VA 23322

RE: ***Nutri-Green®*** Farm Report

Dear Mr. Weatherly:

Ag Nutrients, Inc. wants to thank you for your participation in H.R.S.D.'s *Nutri-Green®* land application program. The *Nutri-Green®* biosolids are a valuable soil amendment, which greatly reduces your need for the application of commercial fertilizer. *Nutri-Green®* biosolids also provides a soil conditioning benefit to your fields in the form of added organic matter.

The enclosed information details the analysis and amount of *Nutri-Green®* biosolids applied to each field, a nutrient balance sheet for each field, nutrients added to each field, field soil description, a value sheet for each field, maps, along with Nutrient Management Plan Special Conditions for Biosolids Application.

Due to *Nutri-Green®* biosolids being an organic material, plant nutrients are released slowly as it is decomposed through the mineralization process. A brief description of the first year's primary plant nutrient availability is as follows:

Nitrogen
The Plant Available Nitrogen (PA-N) listed is the amount which will become available during the first year's growing season. A portion of the supplied nitrogen is inorganic (ammonia-nitrogen) and is readily available for crop use immediately (providing starter nitrogen), while the remaining becomes available during the growing season through the decomposition process converting the organic nitrogen to inorganic (ammonium and nitrate) available nitrogen.
The greatest release from the organic nitrogen portion of the *Nutri-Green®* biosolids applied occurs during the first growing season. The Nutrient Balance sheet shows the amount of Nitrogen available during the second and third growing seasons allowing you to reduce your fertilizer requirements for these additional growing seasons.

3160 Jacobia Lane
Cape Charles, VA
23310

PHONE (757) 678-6129
FAX (757) 331-3957
E-MAIL smithagronomic@verizon.net
WEB SITE www.smithagronomic.com

Phosphorus
This report lists the total and available phosphorus applied per dry ton of *Nutri-Green®* biosolids applied. A large portion of the total phosphorus is tightly bound in the organic matter. We use an estimate of 33% of the total phosphorus will be available the first growing season. The available phosphorus applied has been converted to phosphate (P_2O_5) for use in the Nutrient Balance Sheet as well as providing available phosphate in the second and third growing seasons.

Potassium
Nutri-Green® biosolids provides only a small portion of the potassium requirements for crop growth. The Nutrient Balance Sheet provides the necessary information for additional potash needs over and above what is applied in the *Nutri-Green®* biosolids and is available from the soil resources.

A summary of the estimated primary, secondary, and trace nutrients are found in this report as well as the value added of these nutrients. This *Nutri-Green®* biosolids program also provides for the addition of lime if current soil analyses show a need.

We look forward to your continued participation in H.R.S.D.'s *Nutri-Green®* land application program. If you need any additional information regarding this report, please do not hesitate to contact me at (757) 678-6129 or Jim Salmons at (757) 426-6824.

Sincerely,

Christy F. Smith

Christy F. Smith

NUTRIENT MANAGEMENT PLAN IDENTIFICATION

Operator
O. G. Weatherly
1953 Long Ridge Road
Chesapeake, VA 23322
757-421-3005

F-1790 T-2489

Watershed Summary
Watershed: AS15
County: Chesapeake

Nutrient Management Planner
Christy F. Smith
3160 Jacobia Lane
Cape Charles, VA 23310

Certification Code: 297

Acreage Use Summary
Total Acreage in this plan: 113.1
Usable cropland acreage108.6
Hayland: 0.
Pasture: 0.
Specialty: 0.

Livestock Summary
Beef Cattle 0
Dairy Cattle 0
Poultry 0
Swine 0
Other 0

Manure Production Balance

	Imported	Produced	Exported	Used	Net
kgals	0.	0.	0.	0.	0.
tons	0.	0.	0.	0.	0.

Plan written 1/2/2011
Valid until 1/2/2014

Signature: Christy F. Smith 1/2/2011
Planner **date**

0 425 850 1,700 2,550 3,400 Feet

USDA

Prepared by Chesapeake
Farm Service Agency

Farm: 1790
Tract: 2489

Legend
fsa_cls_layers

Wetland Determination Identifiers
- Restricted Use
- Limited Restrictions
- Exempt from Conservation Compliance Provisions
  clu.SDE.clu_a_va550

Date: 12/30/2009

113.06 acres
Weatherly

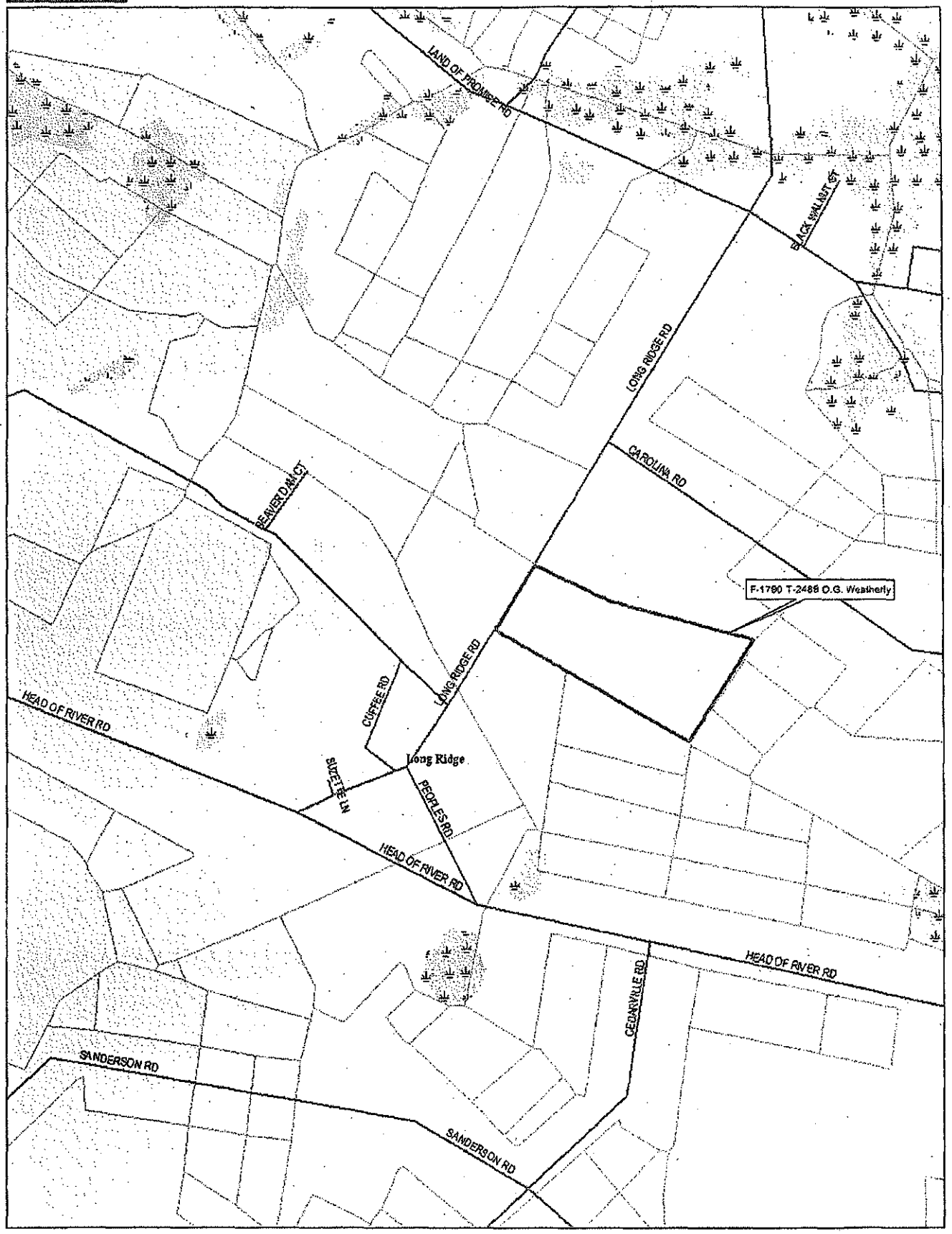
N

1 inch equals 344 feet

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

DELORME

Topo USA® 5.0



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www.delorme.com

MN (10.8° W)

0 800 1600 2400 3200 4000 ft

Data Zoom 13-0

9. Incineration. *Alternative Emergency Plan*

(Complete Question 9 if sewage sludge from your facility is fired in a sewage sludge incinerator.)

a. Total dry metric tons per 365-day period of sewage sludge from your facility fired in a sewage sludge incinerator: 0 dry metric tons 2010 estimate

b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired?
X Yes ___No
If no, answer questions c - g for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one sewage sludge incinerator, attach additional pages as necessary.

c. Incinerator name or number:

d. Contact person:
Title:
Phone: ( )
Contact is: ___Incinerator Owner ___Incinerator Operator

e. Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

f. Total dry metric tons per 365-day period of sewage sludge from your facility fired in this sewage sludge incinerator: _____ dry metric tons

g. List on this form or an attachment the numbers of all other federal, state or local permits that regulate the firing of sewage sludge at this incinerator:

Permit Number:	Type of Permit:

10. Disposal in a Municipal Solid Waste Landfill. *Alternative Emergency Plan*

(Complete Question 10 if sewage sludge from your facility is placed on a municipal solid waste landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.)

a. Landfill name: Bethel Landfill

b. Contact person: Howard Burns
Title: Landfill Supervisor
Phone: (757)766-3033
Contact is: X Landfill Owner ___Landfill Operator

c. Mailing address.
Street or P.O. Box: 100 North Park Lane
City or Town: Hampton State: VA Zip: 23666

d. Landfill location.
Street or Route #: 100 North Park Lane
County:
City or Town: Hampton State: VA Zip: 23666

e. Total dry metric tons per 365-day period of sewage sludge placed in this municipal solid waste landfill:
0 dry metric tons 2010 estimate

f. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the operation of this municipal solid waste landfill:

Permit Number:	Type of Permit:
580	DEQ- Solid Waste Division

g. Does sewage sludge meet applicable requirements in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq., concerning the quality of materials disposed in a municipal solid waste landfill?
X Yes ___No

h. Does the municipal solid waste landfill comply with all applicable criteria set forth in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq.? X Yes ___No

i. Will the vehicle bed or other container used to transport sewage sludge to the municipal solid waste landfill be watertight and covered? X Yes ___ No
Show the haul route(s) on a location map or briefly describe the route below and indicate the days of the week and time of the day sewage sludge will be transported. Biosolids would be transported via General Booth Boulevard to 264 W. Follow 264 W to 64 W. Stay on 64 W until exit 261. Turn right on Big Bethel Road and turn left on North Park Lane. Transport would occur during daytime business hours of the landfill.

SECTION C. LAND APPLICATION OF BULK SEWAGE SLUDGE

Complete this section for sewage sludge that is land applied unless any of the following conditions apply:
The sewage sludge meets the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements and one of the vector attraction reduction options 1-8 (fill out B.4 instead) (EQ Sludge); or
The sewage sludge is sold or given away in a bag or other container for application to the land (fill out B.5 instead); or
You provide the sewage sludge to another facility for treatment or blending (fill out B.6 instead).
Complete Section C for every site on which the sewage sludge that you reported in B.7 is land applied.

1. Identification of Land Application Site. **See attachment for listing of permitted sites.**
   a. Site name or number:
   b. Site location (Complete i and ii)
      i. Street or Route#:
      County:
      City or Town: __State: _____ Zip:
      ii. Latitude:_____Longitude:
      Method of latitude/longitude determination
      _____ USGS map _____ Filed survey _____ Other
   b. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.

2. Owner Information.
   a. Are you the owner of this land application site? __Yes __X__No
   b. If no, provide the following information about the owner:
      Name:
      Street or P.O. Box:
      City or Town: _____ State:_____ Zip:
      Phone: ( )

3. Applier Information:
   a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? __X__Yes __No
   b. If no, provide the following information for the person who applies the sewage sludge:
      Name:
      Street or P.O. Box:
      City or Town:_____ State:_____ Zip:
      Phone: ( )
   c. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the person who applies sewage sludge to this land application site:

Permit Number:	Type of Permit:
VA0081248	VPDES
VAD980720353	RCRA
60959	DEQ-Air Division

4. Site Type. Identify the type of land application site from among the following:
   __X__Agricultural land __Reclamation site __Forest
   __Public contact site __Other. Describe

5. Vector Attraction Reduction.
   Are any vector attraction reduction requirements met when sewage sludge is applied to the land application site?
   ____Yes __X__No If yes, answer a and b.
   a. Indicate which vector attraction reduction option is met:
      __ Option 9 (Injection below land surface)
      __ Option 10 (Incorporation into soil within 6 hours)
   b. Describe, on this form or on another sheet of paper, any treatment processes used at the land application site to reduce the vector attraction properties of sewage sludge:

PERMITTED LAND APPLICATION SITES

Operator	City	Site	Acres	Latitude	Longitude	Location
Arnold Dawley	Virginia Beach	T-200	166.8	N 36° 43.130'	W 76° 2.899'	3300 block West Neck (West) & 2413 Indian River (South) Roads
		T-869	142.3	N 36° 42.317'	W 76° 3.195'	3500 block West Neck Road (West Side)
		T-63	19.6	N 36° 43.282'	W 76° 3.285'	2500 block Indian River Road (South Side)
		T-833	43.3	N 36° 43.105'	W 76° 3.246'	3200 block West Neck Road (West Side)
	Virginia Beach	T-210	54.9	N 36° 44.626'	W 76° 3.764'	2700 block West Neck Road (West Side)
	Virginia Beach	T-217	88.0	N 36° 44.081'	W 76° 3.163'	2852 block West Neck Road (Northeast Corner)
			514.9			
Clifton Cutrell, Jr.	Chesapeake	T-202	406.1	N 36° 35.501'	W 76° 9.495'	3400 block Cedarville (East) & 1516 Indian Creek (North) Roads
			406.1			
David Salmons	Chesapeake	T-1494	475.9	N 36° 40.689'	W 76° 18.222'	Intersection Shillelagh & Atkinson Roads (Northwest Corner)
David Salmons	Virginia Beach	T-242	97.0	N 36° 39.348'	W 76° 2.123'	Intersection Stowe Road North (North), Princess Anne (West) Roads
			572.9			
Donald H. Horsley	Virginia Beach	T-9328	141.6	N 36° 34.450'	W 76° 4.387'	6152 Blackwater Road (East Side) Opposite West Gibbs Road
		T-6	10.7	N 36° 34.126'	W 76° 4.474'	6152 Blackwater Road (East Side) Opposite West Gibbs Road
		T-425	107.3	N 36° 35.854'	W 76° 5.057'	5720 Blackwater Road (East Side) Opposite Hungarian Road
		T-423	135.5	N 36° 34.337'	W 76° 4.772'	6273 Blackwater (West) & West Gibbs (North & South) Roads
		T-4345	194.5	N 36° 40.092'	W 76° 5.717'	4204 Blackwater Road (East side)
		T-571vb	228.0	N 36° 34.728'	W 76° 6.892'	2324 Indian Creek Road (South Side)
		T-1435	159.7	N 36° 35.140'	W 76° 6.244'	2324 Indian Creek Road (North Side)
		T-460	175.2	N 36° 38.470'	W 76° 5.245'	4780 Blackwater Road (East Side) Opposite Carolina Road
		T-1454vb	80.3	N 36° 39.096'	W 76° 5.929'	Blackwater Road (West Side) North of Land of Promise Road
		T-4067	115.0	N 36° 39.587'	W 76° 6.760'	West End of Ives Road off of Blackwater Road
		T-1402	65.4	N 36° 38.486'	W 76° 5.907'	Blackwater & Land of Promise Roads (Southeast Corner)
		T-2203	115.3	N 36° 38.431'	W 76° 6.654'	Land of Promise (South) & Caroline (North) Roads; West of T-419
		T-419	306.9	N 36° 38.681'	W 76° 6.163'	Land of Promise Road (North & South Sides)
		T-456	92.1	N 36° 38.516'	W 76° 7.027'	Land of Promise Road (South); West of T-2203
		T-459	126.8	N 36° 38.498'	W 76° 7.315'	Land of Promise Road (South); West of T-456, City line splits
Donald H. Horsley	Virginia Beach	T-452	74.3	N 36° 35.730'	W 76° 5.439'	Blackwater road (West Side); South of Hungarian Road

PERMITTED LAND APPLICATION SITES

Operator	City	Site	Acres	Latitude	Longitude	Location
Donald H. Horsley	Virginia Beach	T-9228	39.7	N 36° 36.294'	W 76° 5.102'	Blackwater road (East Side); @ 'S' Turn @ Blackwater
Donald H. Horsley	Virginia Beach	T-571vb	52.0	N 36° 34.973'	W 76° 7.161'	2324 Indian Creek Road (North Side)
Donald H. Horsley	Virginia Beach	T-1435	55.9	N 36° 34.937'	W 76° 6.420'	2324 Indian Creek Road (North Side)
Donald H. Horsley	Virginia Beach	T-9209	182.6	N 36° 35.192'	W 76° 6.876'	2300 block Indian Creek Road (North & South Sides)
Donald H. Horsley	Virginia Beach	T-9225	60.1	N 36° 35.921'	W 76° 5.474'	Hungarian & Blackwater Roads (Southeast Side)
Donald H. Horsley	Virginia Beach	T-9226	41.8	N 36° 35.632'	W 76° 5.872'	Hungarian Road (South Side); West of T-9225
Donald H. Horsley	Virginia Beach	T-9229	30.3	N 36° 35.565'	W 76° 6.693'	Hungarian Road (South Side); East of Chesapeake City Line
Donald H. Horsley	Chesapeake	T-472	84.9	N 36° 34.929'	W 76° 10.644'	Gallbush Road (East Side)
Donald H. Horsley	Chesapeake	T-711	96.5	N 36° 35.928'	W 76° 7.684'	2100 block Sanderson Road (East Side); North of Hungarian Road
Donald H. Horsley	Chesapeake	T-230	110.1	N 36° 36.181'	W 76° 8.040'	Sanderson Road (Southwest Corner); East of Right Angle Turn
Donald H. Horsley	Chesapeake	T-9	87.6	N 36° 34.386'	W 76° 8.239'	Ansell Road @ End Just Off Baum Road
Donald H. Horsley	Chesapeake	T-16	21.7	N 36° 35.630'	W 76° 7.828'	Hungarian Road (South Side); East of Sanderson Road
Donald H. Horsley	Chesapeake	T-193	254.6	N 36° 35.501'	W 76° 8.611'	Indian Creek road (North Side); West of sanderson Road
Donald H. Horsley	Chesapeake	T-277	55.8	N 36° 34.978'	W 76° 7.844'	2100 block Indian Creek road (North Side)
Donald H. Horsley	Chesapeake	T-254	55.8	N 36° 35.717'	W 76° 8.049'	Intersection Hungarian & Sanderson Roads
Donald H. Horsley	Chesapeake	T-535	23.6	N 36° 34.950'	W 76° 8.437'	2100 block Indian Creek Road (South Side); East of T-1268
Donald H. Horsley	Chesapeake	T-1268	37.8	N 36° 34.849'	W 76° 8.149'	2100 block Indian Creek Road (South Side)
Donald H. Horsley	Chesapeake	T-571cp	54.0	N 36° 34.651'	W 76° 7.536'	2324 Indian Creek Road & Baum Road
			3473.4			
Donald H. Horsley	Chesapeake	T-718	117.9	N 36° 42.003'	W 76° 8.291'	Carter Road (East Side); Near Runway
		T-1334	69.8	N 36° 41.287'	W 76° 8.708'	South of Blue Ridge Road @ Erid of Carter Road
		T-1383	78.5	N 36° 41.361'	W 76° 9.402'	South Side of Blue Ridge Road, West of T-1334
		T-625	249.0	N 36° 41.954'	W 76° 9.857'	Bedford Street (East & West Sides); North of Blue Ridge Road
		T-1321	45.1	N 36° 34.044'	W 76° 8.190'	Ansell Road @ End Just Off Baum Road
			560.3			
Edgar Lane	Chesapeake	T-491	83.32	N36° 38' 53.11"	W76° 08' 17.47"	Long Ridge Rd & Carolina Rd
Edgar Lane	Chesapeake	T-198	160.63	N36° 37' 27.73"	W76° 08' 42.34"	Cedarville Rd & Head of River Rd
		T-405	348.55	N36° 37' 27.73"	W76° 08' 42.34"	Cedarville Rd & Sanderson Rd
		T-523	49.65	N36° 38' 13.98"	W76° 07' 41.57"	Head of River Rd (north side)
		T-1267	87.45	N36° 38' 13.98"	W76° 07' 41.57	Long Ridge Rd & Land of Promise Rd

PERMITTED LAND APPLICATION SITES

Operator	City	Site	Acres	Latitude	Longitude	Location
		T-4099	68.78	N36° 37' 348.70"	W76° 08' 31.68"	Long Ridge Rd & Carolina Rd
		T-9451	16.41	N36° 38' 07.51"	W76° 08' 38.35"	Carolina Rd (south side)
		T-9452	58.96	N36° 38' 07.48"	W76° 08' 51.50"	Carolina Rd (south side)
		T-9620	109.41	N36° 37' 24.88"	W76° 07' 52.94"	Head of River Rd (north side)
		T-9621	2.15	N36° 37' 22.48	W76° 08' 40.50"	Head of River Rd (north side)
		T-9634	47.85	N36° 36' 28.09'	W76° 07' 42.89"	Sanderson Road (east side)
			1033.16			
G. C. Nicholas, Jr.	Chesapeake	T-5	230.7	N 36° 33.531'	W 76° 14.230'	Ballahack Road (South Side); West of Backwoods Road
			230.7			
Glenn H. Brunner	Chesapeake	T-231	61.4	N 36° 40.805'	W 76° 8.398'	Fentress Airfield Road (East Side); North of Pocaty Road
		T-283	72.8	N 36° 38.653'	W 76° 7.977'	2333 Land of Promise Road (South Side)
		T-542	96.7	N 36° 36.472'	W 76° 9.932'	Cedarville Road (West Side); South of Sanderson Road
			230.9			
Guy Newman	Virginia Beach	T-68	78.1	N 36° 48.667'	W 76° 2.991'	800 block London Bridge Road (East Side); Along RR Tracks
		T-4063	62.5	N 36° 48.170'	W 76° 3.399'	London Bridge Road (East Side) Along RR Tracks, South of T-68
		T-41	58.4	N 36° 50.248'	W 76° 2.730'	Intersection Potters (North) & Sludge Roads
		T-137	107.3	N 36° 47.320'	W 76° 2.801'	London Bridge (East) & Dam Neck (North) Roads
		T-161	63.2	N 36° 47.526'	W 76° 2.248'	1900 bolck Harpers Road (West Side)
		T-4066	41.7	N 36° 49.272'	W 76° 2.962'	500 block London Bridge Road (East Side)
		T-4064	19.7	N 36° 47.783'	W 76° 3.309'	Swamp Road (West Side)
		T-123	85.2	N 36° 50.170'	W 76° 1.006'	Intersection Oceana Blvd. & First Colonial Road
		T-42	185.9	N 36° 49.122'	W 76° 0.633'	500 block Oceana Blvd & First Colonial Road
		T-47	27.8	N 36° 48.924'	W 76° 0.321'	500 block Oceana Blvd (East Side)
		T-4065	14.0	N 36° 48.028'	W 76° 0.401'	Harpers Road (North) & Oceana Blvd (West)
		T-155	45.0	N 36° 48.525'	W 76° 0.961'	Princess Anne & Phantom Blvd (North side)
		T-4026	210.6	N 36° 46.115'	W 75° 58.569'	Firefall Drive (South); At End
Guy Newman	Virginia Beach	T-1419	94.0	N 36° 35.084'	W 76° 5.334'	2820 Indian Creek Road (West Side)
Guy Newman	Virginia Beach	T-1444	71.2	N 36° 34.010'	W 76° 5.555'	6956 Crags Causeway (East Side)
Guy Newman	Virginia Beach	T-446	215.9	N 36° 33.608'	W 76° 5.591'	Crags Causeway (North & South Sides); West of West Gibbs Road
			1380.5			

PERMITTED LAND APPLICATION SITES

Operator	City	Site	Acres	Latitude	Longitude	Location
Guy Newman	Chesapeake	T-1220	284.7	N 36° 39.173'	W 76° 11.177'	800 block Beaver Dam Road (North & South Sides)
		T-424	179.6	N 36° 34.906'	W 76° 11.160'	Gallbush Road (East & West Sides); South of Indian Creek
		T-428	405.0	N 36° 34.389'	W 76° 14.068'	1100 block Ballahack Road (North Side)
		T-1325	196.9	N 36° 40.149'	W 76° 7.950'	2025 Pocaty Road (North & South Sides)
		T-48	116.1	N 36° 38.027'	W 76° 15.075'	Benefit & St. Brides Roads (Northwest Corner)
		T-1457	149.4	N 36° 37.597'	W 76° 11.501'	Ballentine Road (North Side); East of RR Tracks
		T-221	264.6	N 36° 37.440'	W 76° 10.147'	1200 block Head of River Road (South Side)
			1596.3			
H. M. Dudley, Jr.	Virginia Beach	T-328	77.8	N 36° 37.149'	W 76° 2.342'	Intersection Princess Anne & Old & New Pungo Ferry Roads
		T-343	16.5	N 36° 36.616'	W 76° 0.840'	Morris Neck Road (West Side); Opposite Campbells Road
		T-1530	25.2	N 36° 36.412'	W 76° 1.010'	Morris Neck Road (East Side); Opposite Fitztown Road
		T-433	70.03	N 36° 39.387'	W 76° 5.761'	4490 Blackwater Road (East Side)
		T-1397	31.4	N 36° 39.057'	W 75° 59.391'	Drum Point Road (North Side); East Side Muddy Creek Road
		T-4244	145.1	N 36° 40.939'	W 76° 1.693'	Princess Anne Road (West Side); South side of jarvis Road
			366.03			
H. M. Dudley, Jr.	Chesapeake	T-213	189.5	N 36° 39.304'	W 76° 9.757'	1700 block Land of Promise road (South Side)
		T-707	123.8	N 36° 39.623'	W 76° 10.072'	1600 block Land of Promise road (South Side)
			313.3			
Herbert L."Pete" Powers	Chesapeake	T-85	30.5	N 36° 33.446'	W 76° 12.790'	Ballahack Road (South Side); West of T-33 & East of T-68cp
		T-68cp	44.1	N 36° 33.622'	W 76° 13.041'	Ballahack Road (North & South Sides); West of T-9431
			74.6			
Howard Salmons	Virginia Beach	T-1250	23.8	N 36° 37.602'	W 76° 2.463'	Princess Anne Road (West Side); @ Grain Elevator
		T-427	206.0	N 36° 38.099'	W 76° 1.966'	Princess Anne Road (East Side); South of Creeds School
		T-1286	20.3	N 36° 38.890'	W 76° 2.357'	Stowe Road South (North Side) West of "S" Turn
		T-1262	39.0	N 36° 39.186'	W 76° 1.683'	Intersection Princess Anne (Northeast), Mill Landing (North) Roads
		T-2106	50.1	N 36° 39.247'	W 76° 1.483'	Mill Landing Road (Adjoining & North of T-1262)
		T-297	40.4	N 36° 40.026'	W 76° 1.914'	1209 Princess Anne Road (West Side)

PERMITTED LAND APPLICATION SITES

Operator	City	Site	Acres	Latitude	Longitude	Location
		T-339	40.5	N 36° 38.395'	W 76° 2.460'	894 Princess Anne Road (West Side); North of Creeds School
			420.1			
J. W. "Sonny" Freeman	Virginia Beach	T-332vb	145.7	N 36° 35.449'	W 76° 1.869	Fitztown Road (South Side) @ West End
		T-313	47.9	N 36° 35.030'	W 75° 59.865'	Grimstead Road @ End Off of Back Bay Landing Road
			193.6			
James Dana Todd	Chesapeake	T-9372	39.9	N 36° 36.897'	W 76° 9.460'	1300 block Sanderson Road (North Side)
		T-9373	121.4	N 36° 37.244'	W 76° 9.328'	Intersection Head of River (South) &Cedarville (West) Roads
		T-461	126.6	N 36° 37.703'	W 76° 9.354'	Intersection Long Ridge (North) & Peoples (North) Roads
		T-931	63.7	N 36° 38.017'	W 76° 9.411'	2000 block Long Ridge Road (East Side)
		T-687	131.2	N 36° 38.676'	W 76° 9.745'	1800 block Long Ridge Road (West Side)
		T-1264	90.3	N 36° 38.346'	W 76° 8.981'	1600 block Long Ridge Road (East Side)
		T-650	80.6	N 36° 38.006'	W 76° 8.272'	Carolina Road (North & South Side); West of T-566
		T-566	100.8	N 36° 37.795'	W 76° 8.096'	Carolina Road (South Side); West of T-9374
		T-9374	157.1	N 36° 37.878'	W 76° 7.547'	Carolina Road (South Side); West of VB City Line
		T-434	37.3	N 36° 37.422'	W 76° 8.285'	1600 block Head of River Road (North Side)
		T-1215	164.0	N 36° 36.701'	W 76° 7.602'	800 block Head of River (North) & Beaver Dam (South) Roads
		T-9234	30.7	N 36° 36.940'	W 76° 8.407'	1700 block Head of River Road (South Side)
		T-9236	89.6	N 36° 38.318'	W 76° 10.778'	1500 block Head of River Road (South Side)
		T-1454	116.2	N 36° 37.651'	W 76° 9.032'	1400 block Head of River Road (North Side) @ Cedarville Road
James Dana Todd	Chesapeake	T-3479	91.58	N36° 38' 1.05"	W76° 10' 37.57"	Head of River Road (north side)
		T-9376	67.82	N36° 37' 58.57"	W76° 07' 26.07"	Old Carolina Road (south side)
		T-9604	100.17	N36° 38' 35.63	W76° 09' 57.96"	Beaver Dam Rd & Long Ridge Rd
			1609.0			
John Matyiko	Virginia Beach	T-433 P	63.9	N 36° 39.363'	W 76° 5.431'	4490 Blackwater Road (East Side)
			63.9			
Michael Salmons	Virginia Beach	T-1339	81.5	N 36° 39.757'	W 76° 0.442'	Charity Neck Road (West Side); South of Gum Bridge Road
Michael Salmons	Virginia Beach	T-314vb	280.7	N 36° 35.591'	W 76° 0.640'	Back Bay Landing Road (End) & Fitztown Road @ Salmons Road
Michael Salmons	Virginia Beach	T-1256	69.8	N 36° 35.195'	W 75° 59.861'	Back Bay Landing Road (End)
Michael Salmons	Virginia Beach	T-1528	45.1	N 36° 35.231'	W 76° 0.746'	Back Bay Landing Road (South Side); East of Princess Anne Road

PERMITTED LAND APPLICATION SITES

Operator	City	Site	Acres	Latitude	Longitude	Location
Michael Salmons	Virginia Beach	T-1306	52.8	N 36° 39.541'	W 76° 1.695'	Princess Anne Road (East Side); North of Mill Landing Road
Michael Salmons	Virginia Beach	T-370	16.7	N 36° 33.771'	W 75° 59.848'	Pocahontas Club Road (East Side)
Michael Salmons	Virginia Beach	T-1529	99.3	N 36° 35.439'	W 76° 0.944'	Intersection Princess Anne, Fitztown, & Back Bay Roads
Michael Salmons	Virginia Beach	T-315	42.0	N 36° 35.668'	W 76° 1.820'	Fitztown Road (North Side) @ West End
Michael Salmons	Virginia Beach	T-1516	63.4	N 36° 38.568'	W 76° 2.179'	Intersection Princess Anne & Stowe Road South (Southwest Corner)
Michael Salmons	Virginia Beach	T-1228	24.0	N 36° 35.841'	W 76° 0.909'	Fitztown Road Across From Salmons Road
Michael Salmons	Virginia Beach	T-327	88.9	N 36° 38.444'	W 76° 0.851'	Intersection Morris Neck & Mill Landing Roads
Michael Salmons	Virginia Beach	T-1238	8.5	N 36° 35.377'	W 76° 0.281'	Back Bay Landing Road (North Side); West of T-1256
			872.7			
L & M Farms	Chesapeake	T-274	234.8	N 36° 38.442'	W 76° 11.106'	700 block Head of River (North) & Beaver Dam (South) Roads
		T-579	132.6	N 36° 39.817'	W 76° 11.134'	1755 Centerville Turnpike (East Side)
		T-233	129	N 36° 37.862'	W 76° 11.218'	717 Head of River Road (South Side)
		T-508	22.9	N 36° 38.241'	W 76° 11.395'	700 block Head of River Road (North Side)
		T-1216	126	N 36° 39.108'	W 76° 10.547'	968 Beaver Dam Road (North Side)
		T-5241	133.4	N 36° 37.424'	W 76° 11.019'	Ballentine Road (Northeast Corner); @ End of Road
		T-9255	36.9	N 36° 37.615'	W 76° 10.483'	1000 block Head of River Road (South Side); @ Long Ridge Road
			815.6			
Marvin C. Etheridge, II	Virginia Beach	T-245	64.5	N 36° 39.204'	W 76° 2.360'	North Stowe Road (North & South Sides); @ Turn in Road
		T-372	34.2	N 36° 36.035'	W 76° 1.416'	Princess anne Road (East Side); South of Morris Neck Road
		T-396	20.6	N 36° 35.712'	W 76° 1.495'	Fitztown Road (North Side)
		T-365	60.5	N 36° 37.258'	W 76° 1.919'	Princess anne Road (East Side); Opposite Old Pungo Ferry Road
			179.8			
North Landing Farms	Virginia Beach	T-78	311.2	N 36° 44.938	W 76° 5.242'	3328 North Landing Road (North Side)
		T-180	77.4	N 36° 44.917	W 76° 5.727'	3328 North Landing Road (North Side); West of T-78
			388.6			
O. Glenn Weatherly	Chesapeake	T-2489	120.3	N 36° 38.117'	W 76° 9.058'	1953 Long Ridge Road (East Side)
		T-271	96.9	N 36° 38.007'	W 76° 11.983'	Intersection Battlefield Blvd & Centerville Turnpike (East Side)
		T-1251	95.8	N 36° 37.256'	W 76° 11.493'	Ballentine Road (South Side) @ End, East of RR Tracks

PERMITTED LAND APPLICATION SITES

Operator	City	Site	Acres	Latitude	Longitude	Location
		T-9431	6.0	N 36° 33.535'	W 76° 12.895'	500 Ballahack Road (South Side)
		T-577	30.0	N 36° 33.530'	W 76° 11.796'	Battlefield Blvd (East Side); South of Intersection Ballahack Road
		T-33	38.1	N 36° 33.468'	W 76° 12.653'	400 Ballahack Road (South Side)
		T-9400	85.8	N 36° 33.426'	W 76° 13.364'	600 Ballahack Road (South Side); West of T-68cp
		T-52	24.5	N 36° 33.748'	W 76° 13.681'	600 Ballahack Road (North Side)
		T-544	227.6	N 36° 33.799'	W 76° 15.843'	Relay Road (North Side)
		T-42cp	42.6	N 36° 33.399'	W 76° 12.496'	300 Ballahack Road (South Side); East of T-33
		T-9401	45.7	N 36° 33.120'	W 76° 14.239'	Backwoods Road (North Side); North of NC Line
		T-9402	22.6	N 36° 33.034'	W 76° 14.463'	Backwoods Road (North Side); West of T-9401, North of NC Line
		T-1231	37.7	N 36° 34.819'	W 76° 16.072'	2150 Ballahack Road (South Side); Northwest Side of US Navy
		T-81	37.5	N 36° 35.796'	W 76° 11.639'	700 Indian Creek Road (South Side); East of Raven Road
		T-121	34.5	N 36° 37.894'	W 76° 13.039'	Benefit Road (South Side); East of Eason & West of Battlefield
		T-2400	28.3	N 36° 38.039'	W 76° 8.252'	Carolina Road (South Side) @ Bend in Road
O. Glenn Weatherly	Chesapeake	T-1863	37.1	N36° 33' 06.05"	W76° 14' 09.88"	Ballahack Rd (north side)
			1011.0			
Scott Weatherly	Chesapeake	T-1327	86.1	N 36° 41.495'	W 76° 7.933'	Fentress Airfield Road (West Side); Along Runway
Scott Weatherly	Chesapeake	T-214	85.7	N 36° 41.843'	W 76° 7.191'	Fentress Airfield Road (North of "S" Turn)
Scott Weatherly	Chesapeake	T-1359	114.3	N 36° 42.237'	W 76° 7.101'	Lockhead Avenue (North & South Sides)
Scott Weatherly	Chesapeake	T-224	45.9	N 36° 42.245'	W 76° 6.446'	Lockhead Avenue (North & South Sides)
			332.0			
Oceana Stables	Virginia Beach	T-43	149.9	N 36° 48.334'	W 76° 0.472'	900 block Oceana Blvd (West Side)
			149.9			
Robert Kovacs Jr.	Virginia Beach	T-444	100.8	N 36° 33.207'	W 76° 4.725'	6621 Blackwater Road (West Side)
Robert Kovacs Jr.	Virginia Beach	T-1428	62.7	N 36° 33.163'	W 76° 5.283'	West Gibbs Road, East Side Joins West Side of T-444
			163.5			
Slabaugh Farms	Virginia Beach	T-4261	73.8	N 36° 37.265'	W 76° 5.856'	Head of River road (South Side); West of Blackwater Road
Slabaugh Farms	Chesapeake	T-500	99.2	N 36° 37.012'	W 76° 9.686'	1200 block Sanderson Road (North Side); West of Cedarville Road
		T-9434	146.5	N 36° 40.957'	W 76° 10.498'	Between 1200 Centerville Tpk & Whittamore Road, South of Murry

PERMITTED LAND APPLICATION SITES

Operator	City	Site	Acres	Latitude	Longitude	Location
		T-9436	113.2	N 36° 38.696'	W 76° 10.511'	Beaver Dam Road (North Side); West of Beaver Dam Court
		T-9437	114.9	N 36° 39.108'	W 76° 8.608'	1500 block Long Ridge (West) & 1800 block Land of Primise (South)
		T-366	51.8	N 36° 41.709'	W 76° 20.569'	2500 block Number Ten Lane (South Side)
		T-2	58.6	N 36° 33.843'	W 76° 14.920'	Relay Road (South Side)
		T-8	74.0	N 36° 33.441'	W 76° 14.766'	Relay Road (South Side)
		T-14	24.6	N 36° 33.596'	W 76° 15.476'	Relay Road (South Side)
		T-18	338.2	N 36° 33.165'	W 76° 15.635'	Relay Road (South Side)
		T-1538	34.3	N 36° 34.389'	W 76° 15.119'	Relay Road (North Side)
		T-9602	261.6	N 36° 39.863'	W 76° 9.205'	Fentress Airfield Road (West Side); @ Intersection Land of Promise
		T-1542	71.3	N 36° 40.888'	W 76° 9.577'	900 block Whittamore Road (East Side
		T-332Ch	170.0	N 36° 40.326'	W 76° 9.105'	Fentress Airfield Road (West Side); @ Intersection Long Ridge
		T-11	7.3	N 36° 42.330'	W 76° 8.492'	Maxwell & Bedford Srteets (Southeast Corner)
		T-621	23.2	N 36° 42.175'	W 76° 8.938'	Bedford Street (South Side); East of T-9477 & West of T-644
		T-638	18.3	N 36° 42.700'	W 76° 8.849'	Maxwell Street (West Side); Between Mt Pleasant Road & Bedford
		T-644	26.3	N 36° 42.324'	W 76° 8.752'	Bedford Street (South Side); South of Corner of Bedford & Maxwell
		T-656	125.0	N 36° 41.910'	W 76° 8.649'	Carter Road (West Side); Just North of Blue Ridge Road
		T-9477	26.3	N 36° 42.165'	W 76° 9.070'	Bedford Street (South Side); West of T-621
		T-294	102.7	N 36° 41.694'	W 76° 8.955'	Blue Ridge Road (North Side); West Side of Carter Road
		T-669	24.2	N 36° 41.967'	W 76° 5.625'	Blackwater Road (Northeast Side); Just East of Fentress Airfield Rd
		T-693	213.1	N 36° 41.338'	W 76° 6.145'	Blackwater Road (East & West Side); South of T-669
Slabaugh Farms	Chesapeake	T-344	33.48	N36° 43' 3.77"	W76° 09' 3.76"	Mount Pleasant Rd (north side)
		T-226	138.13	N36° 39' 7.17"	W76° 8' 29.40"	Land of Promise Rd (north side)
		T-9594	117.31	N36° 42' 4.12"	W76° 09' 3.76"	Bedford St (south side)
			2487.3			
Theodore P. Fries	Chesapeake	T-297	80.1	N 36° 39.435'	W 76° 7.677'	Silvertown avenue (North); @ End of Road
			80.1			
Samuel Lanier Jr.	Chesapeake	T-1311	179.8	N 36° 40.458'	W 76° 9.947'	Whittamore road (East & West Sides); North of Land of Promise
			179.8			
Total Acres			**19700.0**			

6. Cumulative Loadings and Remaining Allotments. ***Not applicable***

(Complete Question 6 only if the sewage sludge applied to this site since July 20, 1993 is subject to the cumulative pollutant loading rates (CPLRs) - see instructions.)

a. Have you contacted DEQ or the permitting authority in the state where the sewage sludge subject to the CPLRs will be applied to ascertain whether bulk sewage sludge subject to the CPLRs has been applied to this site since July 20, 1993? __Yes __No
If no, sewage sludge subject to the CPLRs may not be applied to this site.
If yes, provide the following information:
Permitting authority:
Contact person:
Phone:( )

b. Based upon this inquiry, has bulk sewage sludge subject to the CPLRs been applied to this site since July 20, 1993? __Yes __No If no, skip the rest of Question 6. If yes, answer questions c - e.

c. Site size, in hectares: _____ (one hectare = 2.471 acres)

d. Provide the following information for every facility other than yours that is sending or has sent sewage sludge subject to the CPLRs to this site since July 20, 1993. If more than one such facility sends sewage sludge to this site, attach additional pages as necessary.
Facility name:
Facility contact:
Title:
Phone: ( )
Mailing address.
Street or P.O. Box:
City or Town:_____ State:_____ Zip:

e. Provide the total loading and allotment remaining, in kg/hectare, for each of the following pollutants:

	Cumulative loading	Allotment remaining
Arsenic	_____	
Cadmium	_____	
Copper	_____	
Lead	_____	
Mercury	_____	
Nickel	_____	
Selenium	_____	
Zinc	_____	

Complete Questions 7-12 below only if you apply sewage sludge, or you are responsible for land application of sewage sludge. Information required by these questions may be prepared as attachments to this form. Skip the following questions if you contract land application to someone else (as indicated under Section A.7) who is responsible for the operation.

7. Sludge Characterization. Use the table below or a separate attachment, provide at least one analysis for each parameter. **See attached sheet**

PCBs (mg/kg)
pH (S. U.)
Percent Solids (%)
Ammonium Nitrogen (mg/kg)
Nitrate Nitrogen (mg/kg)
Total Kjeldahl Nitrogen (mg/kg)
Total Phosphorus (mg/kg)
Total Potassium (mg/kg)
Alkalinity as $CaCO_3$* (mg/kg)

* Lime treated sludge (10% or more lime by dry weight) should be analyzed for percent $CaCO_3$.

ATTACHMENT 10

RECEIVING WATERS INFO./ TIER DETERMINATION/STORET DATA/ STREAM MODELING

303(d) LISTED SEGMENTS

TMDL Permit Review

Date: 9/7/2011

To: Jennifer Howell, TRO √ JSH 9/22/2011

Permit Writer: Deanna Austin

Facility: HRSD Atlantic STP

Permit Number: VA0081248

New or Renewal: Renewal

Permit Expiration Date: 1/16/2012

Waterbody ID: VAT C07E (In CEDS for Rudee Inlet-no code for Atlantic Ocean) VAT K42E for all stormwater outfalls

Topo Name: 033C Virginia Beach

Facility Address 645 Firefall Drive Virginia Beach VA 23454

Click here to enter text.

Receiving Stream:

Stream Name: Atlantic Ocean	
Click here to enter text.	
Stream Data Requested? Click here to enter text.	
Outfall #: 001	**Lat Lon: 36 47 12 75 55 37**
Outfall #: Click here to enter text.	**Lat Lon:** Click here to enter text.
Outfall #: Click here to enter text.	**Lat Lon:** Click here to enter text.
Outfall #	**Lat Lon:** Click here to enter text.
Stream Name (2): Lake Tecumseh	
All stormwater outfalls are not monitored-No Exposure Certfications have been given	
Stream Data Requested? Click here to enter text.	
Outfall #: 002, 003, 004, 005, 006, 007, 008, 009, 011,	**Lat Lon: See Application in U Drive Folder**
Outfall #: 012, 014, 016, 017	**Lat Lon:** Click here to enter text.
Outfall #: Click here to enter text.	**Lat Lon:** Click here to enter text.

Is there a design flow change? If yes give the change. No change

TMDL Review:

Has a TMDL been approved that includes the receiving stream?	
No	
If yes, Include TMDL Name, Pollutant(s) and date of approval:	
NA	
Is the facility assigned a WLA from the TMDL?	**No**
If Yes, what is the WLA?	
NA	

Review will be completed in 30 days of receipt of request.

Additional Comments:

Click here to enter text.

Planning Permit Review

Date: 9/7/2011

To: Kristie Britt, TRO

Permit Writer: Deanna Austin

Facility: HRSD-Atlantic STP

Permit Number: VA0081248

New or Renewal: Renewal

Permit Expiration Date: 1/16/2012

Waterbody ID: VAT C07E (In CEDS for Rudee Inlet-no code for Atlantic Ocean) VAT K42E for all stormwater outfalls

Topo Name: 033C Virginia Beach

Facility Address 645 Firefall Drive Virginia Beach VA 23454

Receiving Stream:

Stream Name: Atlantic Ocean (A026)	
Click here to enter text.	
Stream Data Requested? Click here to enter text.	
Outfall #: 001	**Lat Lon: 36 47 12 75 55 37**
Outfall #: Click here to enter text.	**Lat Lon:** Click here to enter text.
Outfall #: Click here to enter text.	**Lat Lon:** Click here to enter text.
Outfall #	**Lat Lon:** Click here to enter text.
Stream Name (2): Lake Tecumseh	
All stormwater outfalls are not monitored-No Exposure Certifications have been given	
Stream Data Requested? Click here to enter text.	
Outfall #: 002, 003, 004, 005, 006, 007, 008, 009, 011,	**Lat Lon: See Application in U Drive Folder**
Outfall #: 012, 014, 016, 017	**Lat Lon:** Click here to enter text.
Outfall #: Click here to enter text.	**Lat Lon:** Click here to enter text.

Planning Review:

303 (d): Indicate Outfalls which discharge directly to an impaired (Category 5) stream segment	
None of the outfalls discharge to an impaired stream segment.	
Click here to enter text.	
Tier Determination	
Tier	**The Atlantic Ocean Deep segment is a Tier 2 water. See Attachment 1.**
Tier	**Lake Tecumseh is Tier 2 water. See Attachment 1.**
Management Plan	
Is the facility Referenced in a Management Plan?	No

Review will be completed in 30 days of receipt of request.

Additional Comments:

Click here to enter text.

that the wasteload allocations and permit requirements for both type waters are the same and they are both grouped under tier 1 for implementation.

Tier 1 waters are defined as those waters wherein one or more standards are not being attained or wherein the existing quality, under critical conditions, is equal to but does not exceed one or more applicable criteria. Information that may be used to establish this tier includes:

- Data collected from the segment of stream being considered that demonstrate that one or more standards are violated or are just barely being met (note exceptions above for fecal coliform and temperature). This demonstration must be outside any mixing zones.

- Data collected for an existing effluent that indicates the need for a more stringent limit than currently exists indicates that the standard is not currently being attained by the effluent under consideration. Thus the water would be tier 1.

- Default assumptions for ammonia that indicate the need for a more stringent limit than currently exists indicates that the ammonia standard is not currently being attained by the effluent under consideration; thus, the water is tier 1.

- An existing water quality based permit limit that was obtained through mathematical modeling may indicate that the effluent under consideration allows the standard to be just barely met in the receiving waters for the parameter modeled, *e.g.* a predicted D.O. of 5.0.

  Note: this does not apply to fecal coliform or to effluent limits adopted as special standards (*e.g.* Potomac Embayment Standards).

- Biological data that demonstrate in stream toxicity.

- Judgement based on the presence of definitely identified sources of pollutants or demonstrated use impairment. Such judgement must be justified and documented. An example might be a water supply reservoir where it is known that algicides are routinely applied.

Tier 2 waters are defined as those waters wherein the existing quality is better than the standards for all parameters that the Board has adopted criteria for (except fecal coliform and temperature for class V waters, see notes above).

<u>If data or information is not available to make a determination, the stream is assumed to be tier 2.</u> Public water supplies and trout streams are assumed to be tier 2 unless information is available to indicate otherwise.

Tier 3 waters are those waters so designated by the Board. These waters are listed in 9 VAC 25-260-30.3.c. If waters are not listed in 9 VAC 25-260-30.3.c, then they are not tier 3.

Once the appropriate tier is assigned, the finding should be documented for future reference. The method for doing this is not recommended since it will vary from region to region. The only guidance is that they should be readily available to future permit writers.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
Division of Water Permit Coordination
629 E. Main Street Richmond, VA 23240

MEMORANDUM

SUBJECT: Guidance Memo No. 00-2011; Guidance on Preparing VPDES Permit Limits

TO: Regional Directors

FROM: Larry G. Lawson

DATE: August 24, 2000

COPIES: David Paylor, Martin Ferguson, Alan Pollock Jean Gregory, Regional Office Permit Managers, Regional Office Water Permit Managers, Regional Office Compliance and Enforcement Managers, OWPP staff

The purpose of this guidance is to replace/update Guidance Memo No. 93 - 015 "Guidance on Preparing VPDES Permits Based on the Water Quality Standards for Toxics"

This guidance was last updated in 1993. Modifications to the water quality standards (WQS) make it necessary to update the guidance. This guidance replaces all previous guidance on the subjects covered herein. Specifically it updates or replaces the following guidance:

91-002	Use of WQS in the VPDES Permit Program
91-011	Selection of Sample Types for VPDES Monitoring
91-016	Use of Existing WQSA Criteria for Silver and Phenol
92-012	Guidance on Use of WQS for Toxics in VPDES Permits
92-012a	Modification of 92-012
930-15	Guidance on Preparing VPDES Permits Based on the Water Quality Standards for Toxics
93-021	Antidegradation Implementation Guidance
94-008	Metals Monitoring, Monitoring Special Condition TOMP Revisions, & Di-2-Ethylhexyl Phthalate
95-012	pH Limits in the VPDES Permits for Cooling Water Outfalls

Note to Users: This document is provided as guidance and, as such, sets forth standard operating procedures for the agency. However, It does not mandate any particular method nor does it prohibit any particular method for the analysis of data, establishment of a wasteload allocation, or establishment of a permit limit. If alternative proposals are made, such proposals should be reviewed and accepted or denied based on their technical adequacy and compliance with appropriate laws and regulations.

Dale Phillips is the contact person if you or your permit managers have any questions.

Voice: 804-698-4077
Fax: 804-698-4032
E-mail: mdphillips@deq.state.va.us

ATTACHMENT 11

TABLE III(a) AND TABLE III(b) - CHANGE SHEETS

TABLE III(a)

VPDES PERMIT PROGRAM
Permit Processing Change Sheet

1. Effluent Limits and Monitoring Schedule: (List any changes FROM PREVIOUS PERMIT and give a brief rationale for the changes).

OUTFALL NUMBER	PARAMETER CHANGED	MONITORING LIMITS CHANGED FROM / TO	EFFLUENT LIMITS CHANGED FROM / TO	RATIONALE	DATE & INITIAL
010, 013, and 015	NA	NA	NA	These stormwater outfalls have been removed from the permit. They were eliminated during the plant upgrade to 54 MGD.	DDA 9/14/11
017	NA	NA	NA	This stormwater outfall was added as a result of plant expansion.	DDA 9/14/11

OTHER CHANGES:	RATIONALE:	DATE & INITIAL
The wording for Grab samples for Enterococci (between 10AM and 4PM) was added to Part I.B. Chlorine Section	Consistent will all other VPDES permit including other TRO HRSD permits.	DDA 9/14/11
Added an Effluent Monitoring Reduction and Frequency Reopener	Based upon request from the facility to review plant data at the 3 year mark for the upgrade 54 MGD plant.	DDA 9/14/11

OTHER CHANGES:	RATIONALE:	DATE & INITIAL
Removed the Effluent Monitoring Frequency Condition	This condition was removed because the facility is not currently operating under a reduced monitoring frequency schedule. This condition may be added back in if the permit is modified at the end of the 3 year data gathering period mentioned above.	DDA 9/14/11
Added a condition about slope to the sludge management section. Section D.12.	This condition was missing from the permit and in accordance with the VPDES manual.	DDA 9/14/11
Removed the monitoring frequency reduction section for the sludge monitoring.	This section had not been requested by the facility to be included in the permit. In addition, due to public comment and concern, a reduction of monitoring frequency would not be grated at this time.	DDA 9/14/11
Change in the TMP language to require the sample to be taken at the same time as the other Part IA monitoring.	Consistent with all other TRO permits that contain toxicity language. It allows the facility to compare other monitoring results with toxicity if there is ever a toxics issue.	DDA 9/14/11
Added the 85% removal efficiency requirement to the Part I.A page	EPA requirement and in accordance with the VPDES manual and all other issued HRSD permits.	DDA 9/14/11
Change in the Chlorine condition to include reporting requirements after 3 consecutive readings below the desired value.	This is consistent with the other HRSD permits issued after Atlantic STP. This was done as a response to VDH comments in 2007.	DDA 9/14/11
QL changed for Chlorine from 0.1 mg/l to 0.10 mg/l.	Changed based upon the significant figures guidance 06-2016.	DDA 9/14/11
Part II of the permit updated.	This section now includes language on VELAP certified laboratory requirements.	DDA 9/14/11

TABLE III(b)

VPDES PERMIT PROGRAM
Permit Processing Change Sheet

1. Effluent Limits and Monitoring Schedule: (List any changes MADE DURING PERMIT PROCESS and give a brief rationale for the changes).

OUTFALL NUMBER	PARAMETER CHANGED	MONITORING LIMITS CHANGED FROM / TO	EFFLUENT LIMITS CHANGED FROM / TO	RATIONALE	DATE & INITIAL
001	Enterococci	None/ 2/month	None/ 35	Required by EPA during the last reissuance of various municipal permits, including the HRSD permits. The EPA letters are attached to the FS.	10/26/11 DDA

OTHER CHANGES FROM:	CHANGED TO:	DATE & INITIAL
Biosolids Requirements	All updated to include the most current biosolids language received from DEQ Central Office.	10/26/11 DDA
Biosolids Requirements	Changes made based on the comments received from HRSD dated 11/1/11. Draft sent 11/4/11.	11/4/11 DDA
Biosolids Requirement concerning sign requirements	HRSD requested on 11/16/11 via email that the condition be listed as the current regulation, not the proposed. Change made.	11/16/11 DDA
Biosolids Requirement concerning buffer zones	HRSD requested on 11/15/11 via letter that the condition be listed as the current effective regulations. Change was made.	11/16/11 DDA

OTHER CHANGES FROM:	CHANGED TO:	DATE & INITIAL
Land Application Sites T-294 and T-4397 Removed from the permit application.	Request made by HRSD on 11/30/11.	11/30/11 DDA

ATTACHMENT 12

EPA PERMIT CHECKLIST

State "Transmittal Checklist" to Assist in Targeting Municipal and Industrial Individual NPDES Draft Permits for Review

Part I. State Draft Permit Submission Checklist

In accordance with the MOA established between the Commonwealth of Virginia and the United States Environmental Protection Agency, Region III, the Commonwealth submits the following draft National Pollutant Discharge Elimination System (NPDES) permit for Agency review and concurrence.

Facility Name: HRSD-Atlantic STP

NPDES Permit Number: VA0081248

Permit Writer Name: Deanna Austin

Date: September 14, 2011

Major [X] **Minor** [ ] **Industrial** [ ] **Municipal** [X]

I.A. Draft Permit Package Submittal Includes:	**Yes**	**No**	**N/A**
1. Permit Application?	X		
2. Complete Draft Permit (for renewal or first time permit – entire permit, including boilerplate information)?	X		
3. Copy of Public Notice?		X	
4. Complete Fact Sheet?	X		
5. A Priority Pollutant Screening to determine parameters of concern?	X		
6. A Reasonable Potential analysis showing calculated WQBELs?	X		
7. Dissolved Oxygen calculations?		X	
8. Whole Effluent Toxicity Test summary and analysis?	X		
9. Permit Rating Sheet for new or modified industrial facilities?			X

I.B. Permit/Facility Characteristics	**Yes**	**No**	**N/A**
1. Is this a new, or currently unpermitted facility?		X	
2. Are all permissible outfalls (including combined sewer overflow points, non-process water and storm water) from the facility properly identified and authorized in the permit?	X		
3. Does the fact sheet **or** permit contain a description of the wastewater treatment process?	X		

I.B. Permit/Facility Characteristics – cont.	Yes	No	N/A
4. Does the review of PCS/DMR data for at least the last 3 years indicate significant non-compliance with the existing permit?		X	
5. Has there been any change in streamflow characteristics since the last permit was developed?		X	
6. Does the permit allow the discharge of new or increased loadings of any pollutants?		X	
7. Does the fact sheet **or** permit provide a description of the receiving water body(s) to which the facility discharges, including information on low/critical flow conditions and designated/existing uses?	X		
8. Does the facility discharge to a 303(d) listed water?		X	
a. Has a TMDL been developed and approved by EPA for the impaired water?			X
b. Does the record indicate that the TMDL development is on the State priority list and will most likely be developed within the life of the permit?			X
c. Does the facility discharge a pollutant of concern identified in the TMDL or 303(d) listed water?			X
9. Have any limits been removed, or are any limits less stringent, than those in the current permit?		X	
10. Does the permit authorize discharges of storm water?	X		
11. Has the facility substantially enlarged or altered its operation or substantially increased its flow or production?		X	
12. Are there any production-based, technology-based effluent limits in the permit?		X	
13. Do any water quality-based effluent limit calculations differ from the State's standard policies or procedures?		X	
14. Are any WQBELs based on an interpretation of narrative criteria?		X	
15. Does the permit incorporate any variances or other exceptions to the State's standards or regulations?		X	
16. Does the permit contain a compliance schedule for any limit or condition?		X	
17. Is there a potential impact to endangered/threatened species or their habitat by the facility's discharge(s)?		X	
18. Have impacts from the discharge(s) at downstream potable water supplies been evaluated?			X
19. Is there any indication that there is significant public interest in the permit action proposed for this facility?	X		
20. Have previous permit, application, and fact sheet been examined?	X		

Part II. NPDES Draft Permit Checklist

Region III NPDES Permit Quality Checklist – for POTWs

(To be completed and included in the record only for POTWs)

II.A. Permit Cover Page/Administration	Yes	No	N/A
1. Does the fact sheet or permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?	X		
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?	X		

II.B. Effluent Limits - General Elements	Yes	No	N/A
1. Does the fact sheet describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?	X		
2. Does the fact sheet discuss whether "antibacksliding" provisions were met for any limits that are less stringent than those in the previous NPDES permit?			X

II.C. Technology-Based Effluent Limits (POTWs)	Yes	No	N/A
1. Does the permit contain numeric limits for ALL of the following: BOD (or alternative, e.g., CBOD, COD, TOC), TSS, and pH?	X		
2. Does the permit require at least 85% removal for BOD (or BOD alternative) and TSS (or 65% for equivalent to secondary) consistent with 40 CFR Part 133?	X		
a. If no, does the record indicate that application of WQBELs, or some other means, results in more stringent requirements than 85% removal or that an exception consistent with 40 CFR 133.103 has been approved?			X
3. Are technology-based permit limits expressed in the appropriate units of measure (e.g., concentration, mass, SU)?	X		
4. Are permit limits for BOD and TSS expressed in terms of both long term (e.g., average monthly) and short term (e.g., average weekly) limits?	X		
5. Are any concentration limitations in the permit less stringent than the secondary treatment requirements (30 mg/l BOD5 and TSS for a 30-day average and 45 mg/l BOD5 and TSS for a 7-day average)?		X	
a. If yes, does the record provide a justification (e.g., waste stabilization pond, trickling filter, etc.) for the alternate limitations?			X

II.D. Water Quality-Based Effluent Limits	Yes	No	N/A
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering State narrative and numeric criteria for water quality?	X		
2. Does the fact sheet indicate that any WQBELs were derived from a completed and EPA approved TMDL?			X

II.D. Water Quality-Based Effluent Limits – cont.	Yes	No	N/A
3. Does the fact sheet provide effluent characteristics for each outfall?	X		
4. Does the fact sheet document that a "reasonable potential" evaluation was performed?	X		
a. If yes, does the fact sheet indicate that the "reasonable potential" evaluation was performed in accordance with the State's approved procedures?	X		
b. Does the fact sheet describe the basis for allowing or disallowing in-stream dilution or a mixing zone?	X		
c. Does the fact sheet present WLA calculation procedures for all pollutants that were found to have "reasonable potential"?	X		
d. Does the fact sheet indicate that the "reasonable potential" and WLA calculations accounted for contributions from upstream sources (i.e., do calculations include ambient/background concentrations)?	X		
e. Does the permit contain numeric effluent limits for all pollutants for which "reasonable potential" was determined?			X
5. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the fact sheet?			X
6. For all final WQBELs, are BOTH long-term AND short-term effluent limits established?			X
7. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?			X
8. Does the record indicate that an "antidegradation" review was performed in accordance with the State's approved antidegradation policy?	X		

II.E. Monitoring and Reporting Requirements	Yes	No	N/A
1. Does the permit require at least annual monitoring for all limited parameters and other monitoring as required by State and Federal regulations?	X		
a. If no, does the fact sheet indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver?			
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?	X		
3. Does the permit require at least annual influent monitoring for BOD (or BOD alternative) and TSS to assess compliance with applicable percent removal requirements?		X	
4. Does the permit require testing for Whole Effluent Toxicity?	X		

II.F. Special Conditions	Yes	No	N/A
1. Does the permit include appropriate biosolids use/disposal requirements?	X		
2. Does the permit include appropriate storm water program requirements?	X		

II.F. Special Conditions – cont.	Yes	No	N/A
3. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			X
4. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?	X		
5. Does the permit allow/authorize discharge of sanitary sewage from points other than the POTW outfall(s) or CSO outfalls [i.e., Sanitary Sewer Overflows (SSOs) or treatment plant bypasses]?		X	
6. Does the permit authorize discharges from Combined Sewer Overflows (CSOs)?		X	
a. Does the permit require implementation of the "Nine Minimum Controls"?			X
b. Does the permit require development and implementation of a "Long Term Control Plan"?			X
c. Does the permit require monitoring and reporting for CSO events?			X
7. Does the permit include appropriate Pretreatment Program requirements?	X		

II.G. Standard Conditions	Yes	No	N/A
1. Does the **permit** contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?	X		

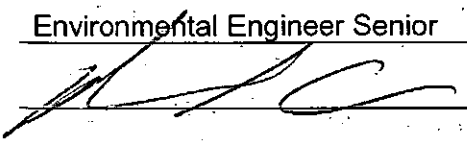
List of Standard Conditions – 40 CFR 122.41

Duty to comply
Duty to reapply
Need to halt or reduce activity not a defense
Duty to mitigate
Proper O & M
Permit actions
Property rights
Duty to provide information
Inspections and entry
Monitoring and records
Signatory requirement
Bypass
Upset
Reporting Requirements
Planned change
Anticipated noncompliance
Transfers
Monitoring reports
Compliance schedules
24-Hour reporting
Other non-compliance

2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for POTWs regarding notification of new introduction of pollutants and new industrial users [40 CFR 122.42(b)]?	X		

Part III. Signature Page

Based on a review of the data and other information submitted by the permit applicant, and the draft permit and other administrative records generated by the Department/Division and/or made available to the Department/Division, the information provided on this checklist is accurate and complete, to the best of my knowledge.

Name	Deanna Dodson Austin
Title	Environmental Engineer Senior
Signature	
Date	9/14/11

ATTACHMENT 13

CHRONOLOGY SHEET

Chronology

Facility Name: HRSD - Atlantic Sewage Treatment Plant *VA0081248*

Event	*Date*	*Comment*
Application fee deposited:	—	NA-Reissuance
FS/SOB draft permit sent to State Agencies (list i:	—	NULL
Site visit:	— 9/16/2010	DDA also performed site visit on 8/19/11.
Site inspection report:	— 10/1/2010	
First Application Reminder Phone Call:	— 2/25/2011	Spoke to Sharon Nicklas
Second Application Reminder Phone Call:	— 5/24/2011	
Application received at RO 1st time:	— 6/6/2011	
App sent to State Agencies (list in comment field):	— 6/21/2011	Sent to VDH, DSS, VMRC via FTP site
Applic/Additional Info received at RO 2nd time:	— 6/24/2011	Site Map Books Received
Application Administratively complete:	— 6/24/2011	
Comments rec'vd from State Agencies on App:	— 6/28/2011	DSS VDH rec 6/30/11
App complete letter sent to permittee:	— 7/27/2011	
Application totally / technically complete:	— 7/27/2011	
Draft permit developed:	— 9/14/2011	
Old expiration date:	— 1/16/2012	
First DMR due:	— 3/10/2012	